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In This Issue . . .
MOTION PICTURE
COMPOSITION



MARCH
1947



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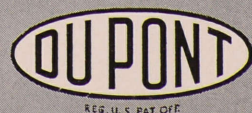
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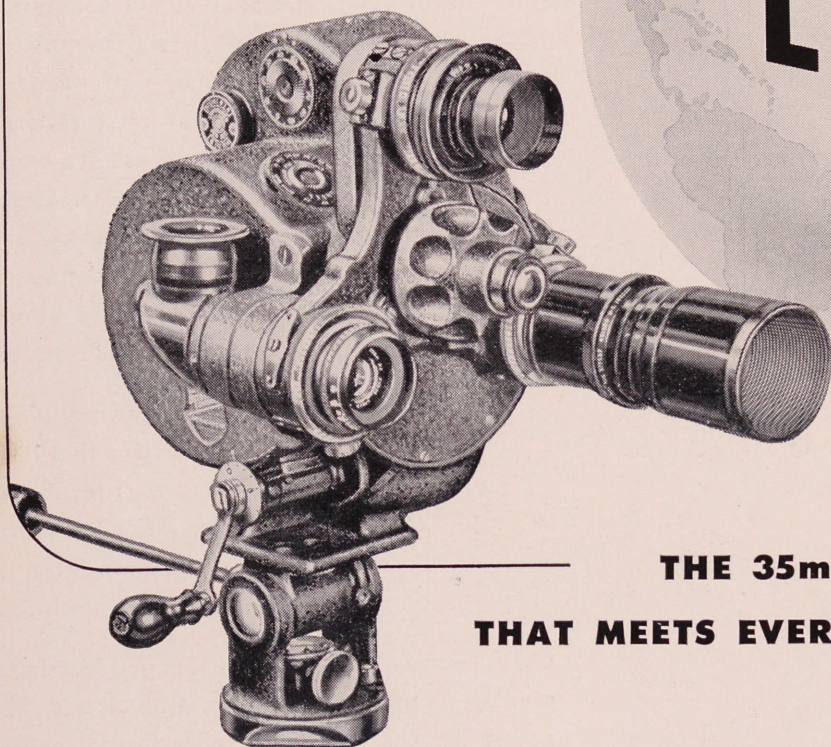


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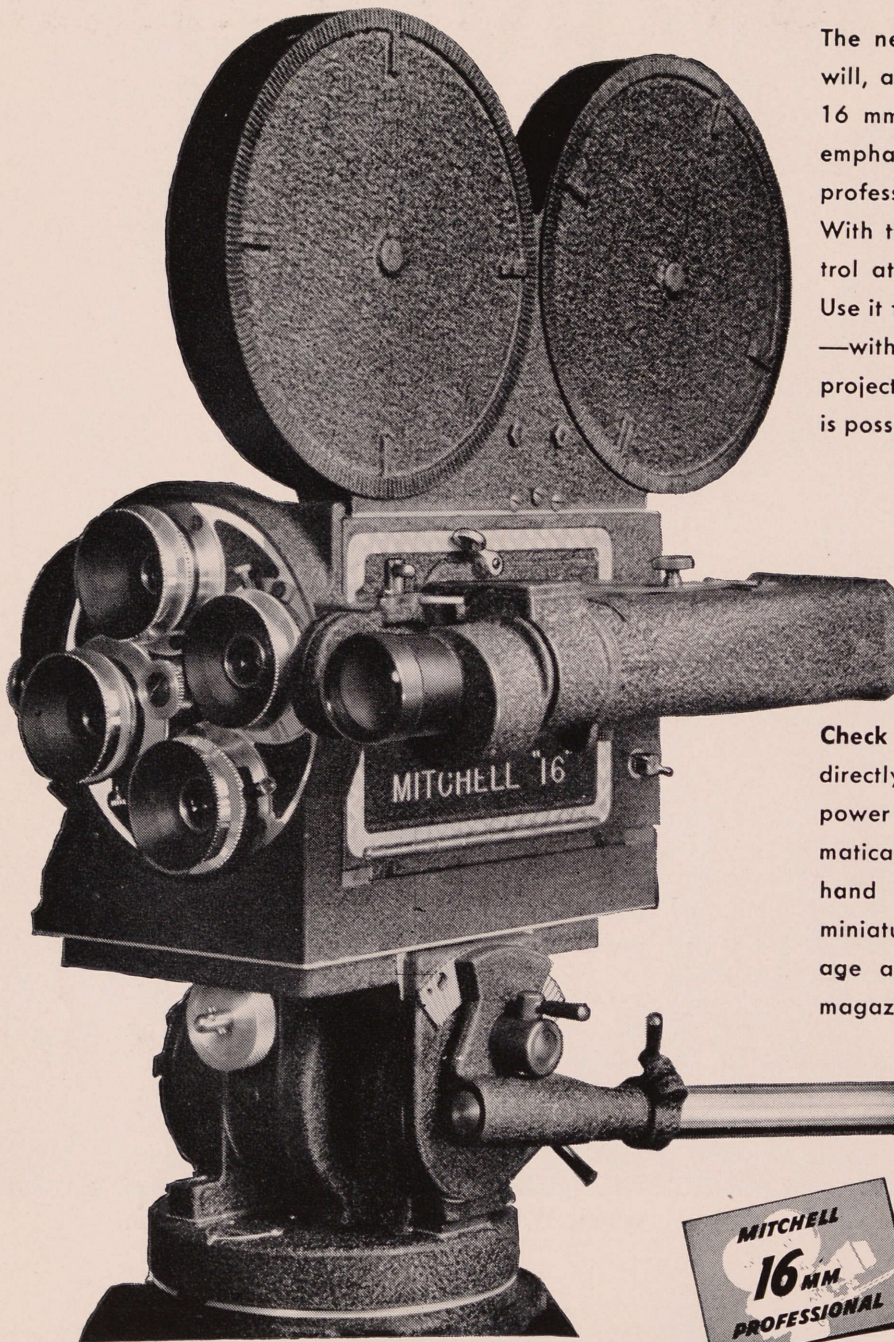
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AMERICAN INEMATOGRAPHER

THE MOTION PICTURE CAMERA MAGAZINE

VOL. 28

MARCH, 1947

NO. 3

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ON THE FRONT COVER—Setup for special angle shot of Teresa Wright for the Samuel Goldwyn production, "Best Years of Our Lives." Director William Wyler closely observes beside the camera in upper left, while Director of Photography Gregg Toland, A.S.C., is below Wyler. Photo by Hal McAlpin.



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Eddie Albert, chairman, and Remy L. Hudson, president of the company, confer with Jack Newman-Clark, technical advisor for United Airlines.

A scene on the set during the filming of "Reservations, Please", a United Airlines training film produced by Eddie Albert Productions.

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At left is shown the Bardwell & McAlister Baby Keg-Lite, a light weight 500 or 750 watt spot which is used as a key light and for special lighting jobs. The Foco Spot shown below is for use with this light.

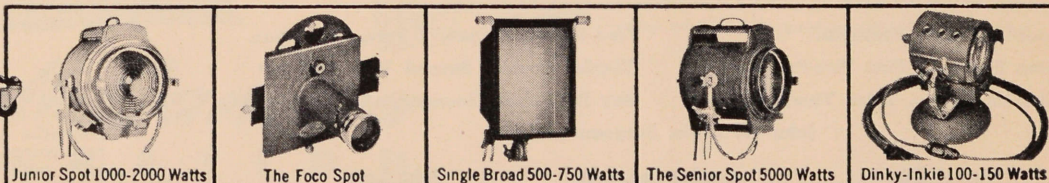
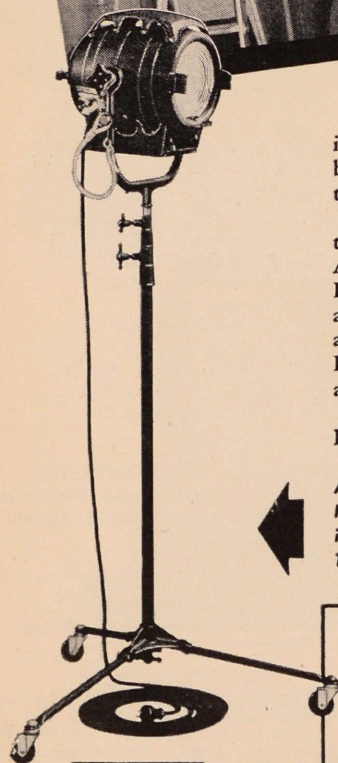
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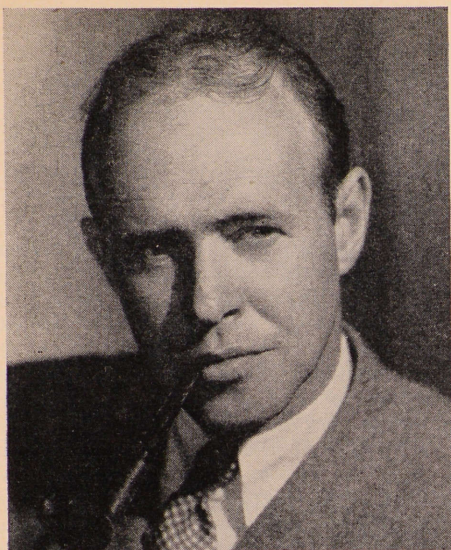
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GEORGE FOLSEY, A.S.C.
"The Green Years"—M-G-M

ACADEMY AWARD NOMINATIONS FOR BEST CINEMATOGRAPHY OF 1946



ARTHUR MILLER, A.S.C.
"Anna and King of Siam"—20th-Fox

NOMINATIONS for the most outstanding cinematography on motion picture productions released during 1946, from which the best in black-and-white and color will be voted by the Academy of Motion Picture Arts and Sciences during the coming two weeks are:

Black-and-White

"The Green Years," Metro-Goldwyn-Mayer, by George Folsey, ASC.

"Anna and the King of Siam," 20th Century-Fox, by Arthur Miller, ASC.

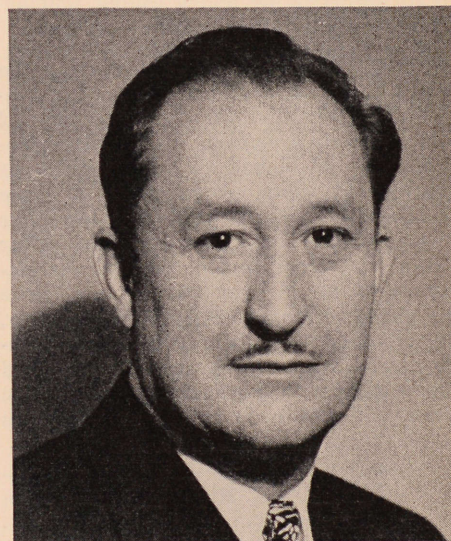
Color

"The Yearling," Metro-Goldwyn-Mayer, by Charles Rosher, ASC., Len Smith, ASC, and Arthur Arling, ASC.

"The Jolson Story," Columbia, by Joseph Walker, ASC.

Selection of only two productions for cinematographic achievement in both the black-and-white and color divisions for

(Continued on Page 106)



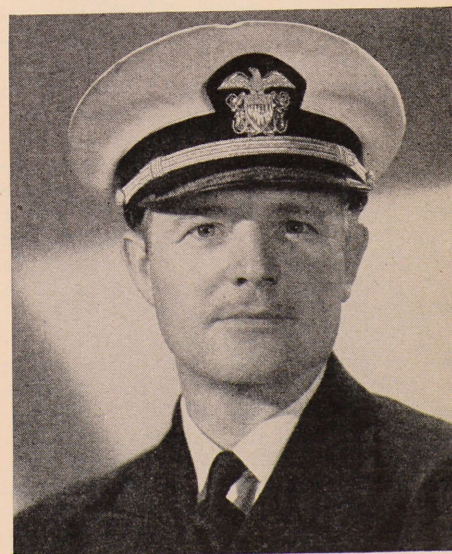
JOSEPH WALKER, A.S.C.
"The Jolson Story"—Columbia



CHARLES ROSHER, A.S.C.



LEN SMITH, A.S.C.
Directors of Photography on "The Yearling"—M-G-M



ARTHUR ARLING, A.S.C.

Composition In Motion Pictures

By Howard T. Souther

(Stephens Manufacturing Co., Los Angeles, Calif.)

Motion pictures are the supreme medium for conveying illusion. Reality, unreality, in fact, any manifestation of artistic imagery is ours through the use of this tool of expression. Not only is the illusory feeling of all of the three dimensions present in this art form, but present also is the fourth dimension unavailable to any other form of art, time and movement.

The first section of this chapter will deal with the construction of the motion picture as a static form through the conjunction of lines, tones, masses and perspectives as forming a part of the unified whole.

The second section, to be published in April, will delineate the nature and use of color in the art product.

The third section, to appear in the May issue, will disclose the superior architectural unity derived from dynamics and its laws of motion.

FOREWORD

WHEN we go to the theater the eye is first conscious of an illuminated oblong in a sea of blackness. In a moment it recognizes portions of this oblong as having different degrees of illumination. Some of these portions are nearly white and some are nearly black. Those portions which differ from each other in tone we call the *elements* of our picture. Part of our job is to group these elements in a pleasing, harmonious way. Arranging picture elements in a satisfying manner is called good design or *good composition*. The term indicates most of the relationships which form a work of art.

These pages expound no patent system of aesthetics. If we reduce motion picture composition to a mere exposition of mechanical ingenuity we strip it of all human and social values. No other form of art confines us so little and allows us to do so much. But all expression attains to certain limits, certain boundaries within which the imagination may be exercised and the creative impulse may hold sway.

But even though beauty and rhythm in motion pictures is an abstract thing, it is still subject to laws, as is everything in nature. There are laws in nature pertaining to proportions that are gratifying, to balance that satisfies, just like those that govern equilibrium and gravity. The elements of our picture are governed by these laws whether it be in closeup, medium or long shot.

The scientific approach to our subject would demand now that we engage in a definition of terms. First, what is beauty, and second, what is *imagination*? The task of definition is a difficult one. As technicians and theorists, we must resort to defining one in terms of the other.

About beauty . . . one man says that no thing is beautiful. All things await the sensitive and imaginative mind that may be aroused to pleasurable emotion

at the sight of them. Herein lies beauty. All is as beautiful as we think it. A beam of light, a tree shadow, then a soft glow to temper the shadow—these things are facts. They are vested with beauty only when spun through the alembic of the imagination. This admittedly, is a subjective approach.

And now about imagination. We have little patience with the so-called scientific alibi that imagination is a groove in the skull, or an accidental formula in the compounding of grey matter. It is certainly more than a simple depth of tangent in the convolutions of the brain. For to us, it must mean application through sure knowledge: a bold splash of light from a sun-arc, courage to employ violent foreshortening for an effect, willingness to accommodate to accidental happenings during production. The imaginative idea is not confined to one person. The propman waxes down a light reflection from a table top; the makeup man hovers over the principals to wipe away perspiration just before the take; an electrician calls for a shop man to quiet down the growl of a motor in his arc lamp. And all this because each individual has imagined how the results of his action would seem in the final product. These constructive thoughts are repeated hundreds of times in the course of a day's work. The finished picture is truly imagination in its highest, most sustained flight. In a word, imagination is the feeling in each worker that he is not making a motion picture for "bread alone."

* * *

Composition is really just common sense in the imaginative use of elements. As for these elements, there are only a few. Here is the first:

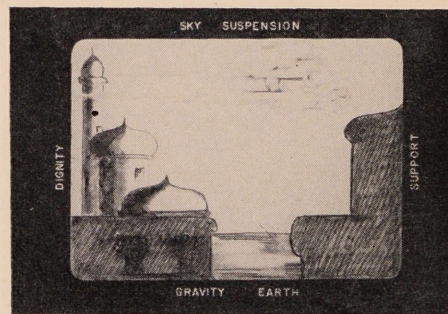
The Frame of the Picture

The frame of the image consists of the spatial boundary within those limits the shot is to be confined. Everyday perception differs considerably from the

perception of the same things when bounded by the frame limits. On the screen we place the objects seen in a definite spatial situation; just as well do we give the objects a definite size in that spatial dimension. Consequently, the frame from a compositional standpoint is very important.

The size of the frame varies according to the size of the theater. The proportions, however, are standard and do not change. These conform to the ratio of 1.33 to 1. The resultant is four units long and three units high. The proportions we have just named are designated the *aspect ratio*.

These frame proportions have for four decades been the subject of unending controversy. Lloyd Jones, of Eastman Kodak, states that the optimum for close-up composition should be .84 to 1. The ideal for long shot construction he designates as 1.60 to 1. So we see that the present size used as a standard presents an agreeable compromise.

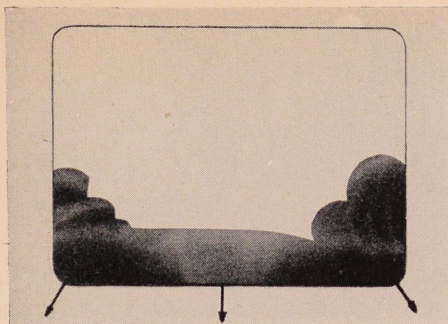


Because of our association with its position, the lower side of the frame conveys to us the feeling of the earth, stability, the foundation of our composition. It conforms with our sense of physical balance, and the base we find in all mechanical construction. The upper side of the frame is one which attracts less attention. It conveys the feeling of sky, infinity, indetermination. The sides, of course, derive from the base and the top. The lower portions achieve a feeling of gravity and support. The upper portions convey aspiration and ethereal quality.

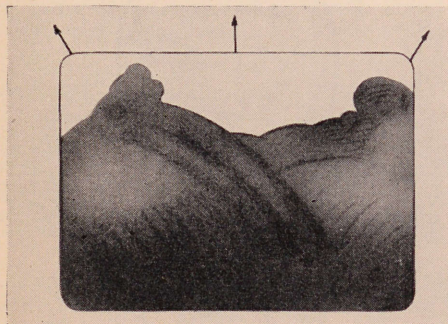
The Corners

From the standpoint of composing our picture, the corners have a very definite effect and must be considered carefully. There is an unmistakable feeling of dynamic thrust caused by the two lines meeting to form an angle. We must use this effect or subdue it as the scene requires.

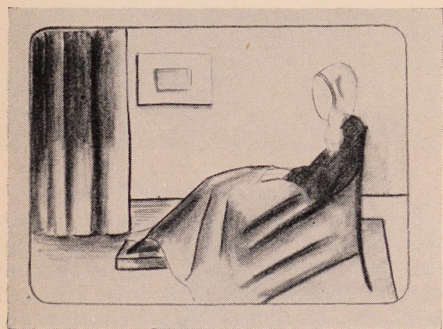
The bottom corners display movement outward and downward. These combine to suggest downward thrust, and the feeling of solidarity and weight.



The upper corners suggest movement upward and outward. The equal thrust outward tends to cancel and a feeling of suspension and aspiration is experienced.



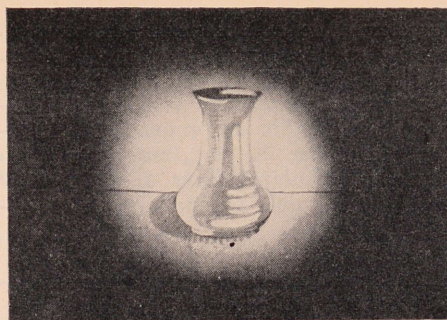
Cutting the lines of our border by objects in the picture has a very definite effect. The more acute the angle of cutting, the more vigorous is the effect. The illustration shows this introduction of power and vitality into the scene.



Control of the Frame

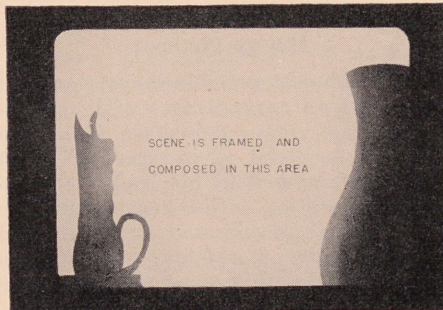
As opposed to the legitimate theatre, the relative size of the frame can be reduced in motion pictures by use of the vignette and silhouette. This serves to draw attention to the actors and action. We are able, also, to effect the feeling of distance by aerial perspective through tonal control of our elements. In the legitimate theatre this must be accomplished by linear perspective, which draws the eyes violently to the vanishing point. A feeling of irritation is experienced thereby.

By controlling the light on the objects in the immediate foreground of the motion picture composition, we may suggest an enclosure for our scene of almost any size and shape.



The Vignette

When we employ the vignette the borders of our scene fade gradually into our frame and into the walls of the



theatre. The vignette has an irregular shape generally, as though the points of the scene removed from our center of interest have not been definitely observed. The scene is confined and no parts of it seem to touch the frame. Lighting in a low key is indicated.

The Background

Lee Simonson, one of the foremost theatrical designers of our time, says: "Stating it as a doctrine, one might say that the quality of a background determines one's emotional reaction to anything that happens in front of it." It is just as much a part of careful composition not to overdo. We may borrow a thought from Ernst Lubitsch and Norman Bel Geddes, who say that if a background is so beautiful and commanding that it detracts from the action it is a crime. But remember this: The mind through the eye is conscious of everything that surrounds the focal point.

The vignette is important as a tool in pictures to approximate actual vision. Wide angle lenses take in much more than does the eye. The human eye has a perception angle of about 60 degrees. In shots covering an area through a greater angle, vignetting reduces the wide angle irritation and makes for more pleasant observation. We must not strain the eye with too much picture.

The Silhouette

In the silhouette we have the essence of simplicity. We must understand that the feeling of three dimensionality must be reduced in this form, however, because we use really only one of the aids to this type of perception—the shape of the contour. But the eye delights in following the curves of the outline, and the



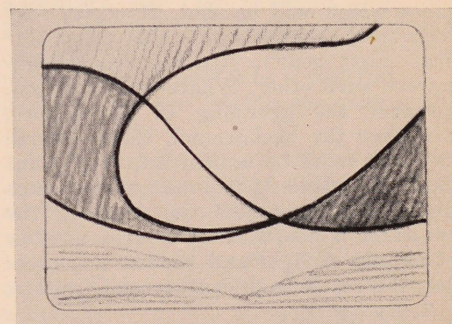
silhouette emanates a feeling of repose and unity which is useful for effects. With this tool we can characterize the subject completely and forcefully project a single feature.

Quality

This word *quality* as we shall use it is really a coined word. We shall use it to convey the thought of shading, of gradation from black to white. Later the word will embrace the thought of color and the various values which we attribute to it. But color we shall take up at length in the next section of this chapter. Until then it will be well to think of shading or quality in terms of monochrome, or all the shades of black and white. The use of black and white and the various shades between these two extremes is the purpose of the next few pages. We shall think of these as actual masses to be molded and formed at will to gain a result.

Effecting Quality—Shadows

We may call the darker of two shades a shadow. Ruskin, the famous master said, "Learn to think in shadows." The



general practice in composing with light and dark is to allow not more than a quarter of the scene to be very hot or light. Half the scene may be in mezzo-

tint, or half shadow, and the rest may go black. This postulate we may use as a medium. Varying the proportions will control the effects we may be creating.

The Handling of Quality Elements

In dealing with shadow as an element of our scene, we must recognize the fact that in interior motion pictures we build our scene from a completely unlighted back ground. This is an opposite method to that employed in most of the graphic arts. It resembles wood cuts and their manufacture; we carve out of blackness with our spotlights those parts of the scene from which we derive an exposure.

Procedure

1. Acquiring a pleasing design for the scene demands that first we visualize a two dimensional plan. We mean by this that modeling, or the three dimensional aspect, must be ignored when studying the light and dark scheme. This is accomplished by use of a dark glass, or half closing eyes. In this manner the mezzotints fade, and we are conscious solely of the black and hot patches.

2. Close-ups demand that we use fewer elements. A longshot permits more complexity of the component elements.

3. The use of the wide angle lens and the longshot require that the entire scene be more completely lit, and the darker patches broken up and raised in tone value. We must do this in order that the blacks will not be heavy and break up the unity of the scene as a whole.

Suggestions for Employing Tone or Quality Elements to Promote the Emotional Aspect of the Scene

1. Unity

One postulate in rendering a scene in motion pictures is that the scene must conform to the scenes already shot and those which will be shot. Moreover, the individual elements of the particular shot must bear a distinct relationship toward each other. Whatever the action, however the grouping of the actors, whatever the background, these diverse elements must be unified into a coherent rhythmic whole. If two masses or groups divide the scene and the interest, the spectator is confused. If a large number of masses of light and shadow are present, the result is to confuse and irritate.

2. Rhythm

Rhythm may be introduced into a scene in a number of ways. Agitating a tree which produces a shadow, moving an object such as a hanging lamp so that it appears to be swinging in the breeze makes the scene live. Life may be introduced into the scene in even a static manner. Sharp contrast, suggested movement, the use of *line*, which we shall take up later—all tend to promote vitality.

3. The Deft Touch

This next condition for promoting emotion is difficult to define. Subtle indication of the object of interest . . . characterization of the single important feature of the object is sometimes all that is required. It is that feeling gained by the escape, say, of bald statement. It implies sacrifice of immediate force and contrast to gain an impression. The introduction, perhaps, of a component not

too clearly defined. A net over a certain portion of the camera lens might do it. Perhaps we might employ the vignette for only a portion of the scene. Rembrandt used this aid extensively. Leaving something to the imagination, he found, gave his pictures a quality few artists were able to duplicate in painting.

4. Repose

Another element which promotes emotion is that of *repose*. The word suggests good taste. It suggests the removal of too sharp contrast. It demands that the scene fulfill its function, and purvey its ordained effect; not flamboyantly by the simulated projection of violent color and mass or turbulent line, but nicely, and in the mannerly way.

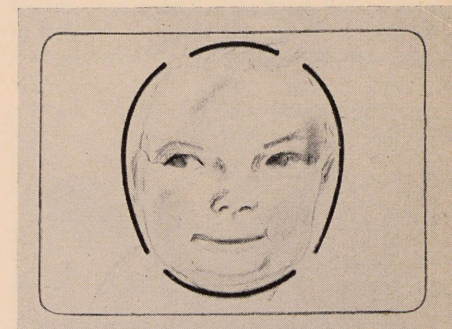
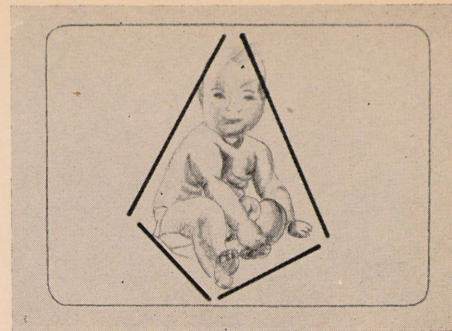
The Nature of Line in Photographing Motion Pictures

"The simplest possible conception of a picture is an arrangement of lines cutting into a rectangular space, in such a way as to make it interesting," says Arthur Hammond in his book on pictorial composition. Our motion picture scene, though devoid of lines such as are used in drawing, etching, et cetera, is nevertheless, governed by the principles of linear form. These affect all presentation whether it be with brush, pencil or camera.

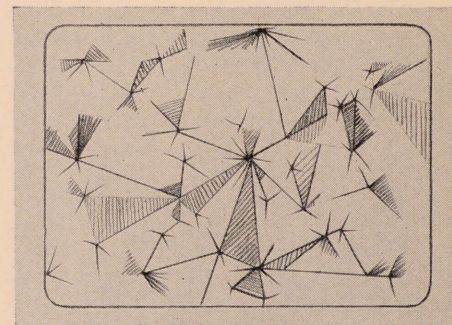
We do not presume to suggest that there should be obvious, unbroken lines running through our composition. Rather, that there should be lines made of points of interest and centers of attraction. Such breaks as are necessary may be skipped by the eye in such a way that they provide variety and interest. In much the same manner that we group our masses of light and dark, so do we arrange the objects and accents in our picture in such a way that the eye may follow the contours along the path we desire it to pursue in observing the scene.

The Pyramid

The pyramid is one of the most frequently used of fundamental forms. It is the secret of most stable and compact designs. In closeups the head forms the apex to the shoulders. The apex of the triangle is often placed *below* the base by the introduction of some smaller feature of interest. This serves as a link to tie the masses together, so that the triangle becomes a quadrilateral. The master Raphael used the quadrilateral or diamond shaped plan extensively. Carried to an extreme the quadrilateral form becomes round or oval. We then

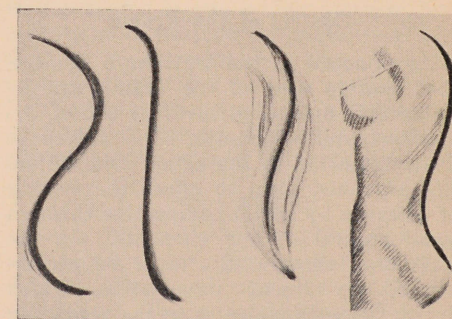


lack the firm lines that make for power. Few firm, stable designs are found that do not use the pyramid as their basic form.



Straight Lines

Straight lines suggest dignity, manliness, vitality, security. Points and angles derived from them suggest excitement or frenzy. If straight lines are used to excess, harshness and irritation are the result.



Curved Lines

Curved lines express flowing beauty. These are recommended for fine pictorial structure. Hogarth, in his book, "Line of Beauty," contends that the most perfect line is a curve which resembles

(Continued on Page 112)

The Zoomar Lens

By Frank G. Back, M.E., Sc.D.

(Research and Development Laboratory, New York)

THE Zoomar varifocal lens was first demonstrated in public at the Spring Convention of the S.M.P.E. in May, 1946, and has since then been accepted by the motion picture profession. During the short time it has been in use it has proved a valuable tool in the field of scientific educational, industrial, and commercial film production.

Though the Zoomar is a result of long and painstaking research, the final development has been greatly speeded up by the recent war. By developing various instruments for the armed forces, which in one way or another involved varifocal optical systems, valuable experience was gained. The Varifocal Viewfinder PH-532/UF for example, designed for the combat cameras of the U.S.A. Signal Corps, used for the first time the principle of a single barrel linear movement to produce a change of magnification. The same principle is also employed in the Zoomar lens. This principle, which distinguishes itself from every other varifocal optical system produced so far, guarantees perfect functioning of the instrument regardless of the inevitable wear of the mechanical parts.

At the present time the Zoomar lens for 16 mm. cameras is in production and on the market. The Zoomar lens

for 35 mm. film is still in the laboratory stage but will be available very soon.

The technical data of the 16 mm. Zoomar Lens are:

Length 12". Width 3½". Height 1½". Weight 1¾ lbs.

Aperture Range: f:2.9 to f:22.

Range: Interchangeable Wide-Angle Front-Lens. Zoom Range: 17 mm. to 53 mm. Distance Range: 4 ft. to inf. (Close-up Attachment for Wide-Angle Front-Lens permits shooting at any specified distance down to 1 inch, covering an area as small as a postage stamp. Lens can be zoomed as usual.)

Interchangeable Tele - Front - Lens Zoom Range: 35 mm. to 106 mm. Distance Range: 14 ft. to inf.

Field Coverage: Difference in field area in any one continuous shot—9 times. Difference in field area in compound zoom shot using both front lenses—36 times.

The technical data of the 35 mm. Zoomar Lens are:

Length 24". Width 6". Height 2¾". Weight approximately 9 lbs. Aperture Range: f:4.5 to f:32.

Range: Interchangeable Wide-Angle Front-Lens. Zoom Range: 40 mm. to

120 mm. Distance Range: 8 ft. to inf. (Close-up Attachment for Wide-Angle Front-Lens permits shooting at any specified distance down to 2 inches, covering an area as small as a postage stamp. Lens can be zoomed as usual.

Interchangeable Tele - Front - Lens. Zoom Range: 80 mm. to 240 mm. Distance Range: 30 ft. to inf.

Field Coverage: Difference in field area in any one continuous shot—9 times. Difference in field area in compound zoom shot using both front lenses—36 times.

The general situations under which the Zoomar lens may be used successfully are scenes necessitating a transition from a total view to a medium plane, or from a medium shot to a close-up. In all these situations, where formerly a trucking shot was required, practically the same effect can be achieved with the varifocal lens.

Any scene of a dialogue between two or more persons, in which the cameraman plans to start with a total view of the situation and then concentrate on one of the persons, can be produced with greater speed and less expense by using the Zoomar lens. The usual procedure can be reversed and the scene can start with a close-up of one speaking person and then the picture may quickly extend into a medium shot, bringing the rest of the company within the frame.

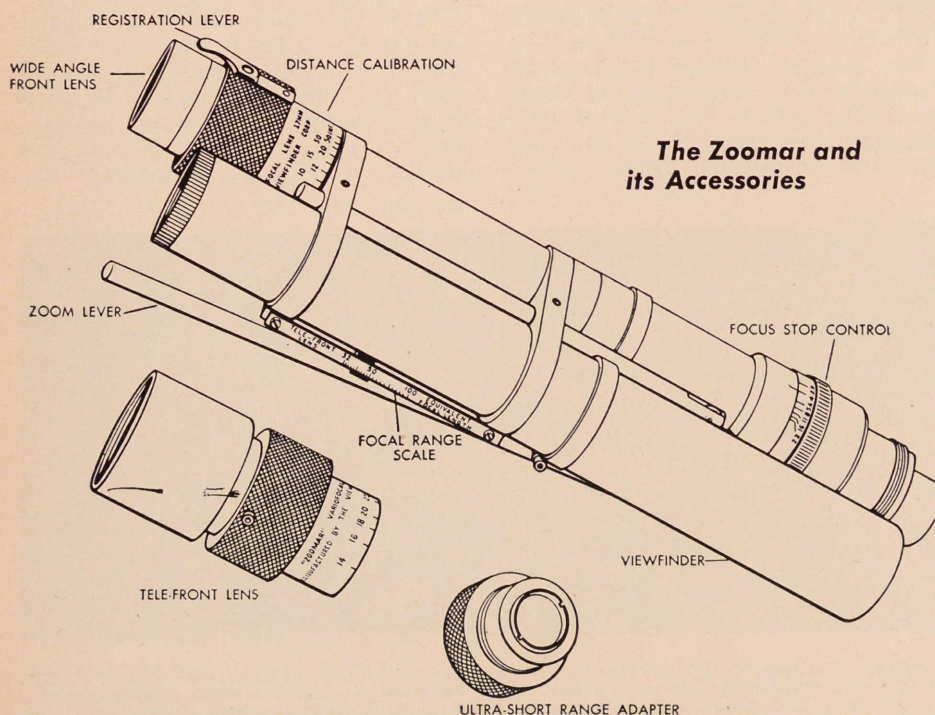
In many cases the use of two or more cameras can be eliminated and an effect similar to cross-cutting can be achieved with the Zoomar lens without the costly loss of valuable studio time by alternating telescopic view and wide-angle shots.

This becomes especially important in the production of musical pictures where the necessity of continuous and uninterrupted shooting of each scene is even greater.

Many of the difficulties of the parallel editing of picture and sound of a musical film sequence—be it playing of a classical string quartette, modern dance music or even of a composition for large orchestra—can be eliminated by shooting the scene with the Zoomar lens.

Striking effects can be achieved by combining the zoom shots with panning. The employment of both a crane (or a dolly) and the Zoomar lens should make it possible to render any shorter composition in one continuous shot,

(Continued on Page 109)



The Zoomar and its Accessories

"13 RUE MADELEINE"



Documentary Style In The Photoplay

By HERB A. LIGHTMAN

A STYLE of documentary filming which Producer Louis de Rochemont and Director Henry Hathaway of Twentieth Century-Fox call *newsdrama* cinematography, has been applied with powerful effect to "13 Rue Madeleine," a picture now in current release.

This kinetic story of O.S.S. activities during the war was filmed *entirely* on location in Washington, D. C., Boston, New York, and Quebec—and was strikingly photographed by Norbert Brodine, A.S.C., who utilized a style of camera-work blending the best elements of studio and newsreel technique.

When the studio first decided to make "13 Rue Madeleine" exclusively in actual locales, a serious problem of settings presented itself. True, the sensationally successful counter-espionage picture, "House on 92nd Street" had been filmed in New York by the same set of technicians—but the settings of that picture were all established as American locales. "Rue Madeleine," on the other hand, called for settings located principally in England and France.

Finding the Right Locales

The script of the picture indicated 128 separate sets, most of which were foreign in character. Producer de Rochemont, for many years head of the "March of Time," felt that the large

cities of the eastern United States, plus the small villages of French-Canada, would lend the picture a much more authentic flavor than anything the set designers could produce at the studio.

In order to prove his theory, he sent a still camera crew to make test record shots in locations where appropriate settings might be found. They photographed the old town-squares, the business districts built in the nineteenth century, and the quaint old residential streets of New York, Boston, the City of Quebec, and surrounding villages.

The 1500 stills which this crew brought back were turned over to studio artists supplied with similar photographs made in authentic European locales. By changing a few street and store signs, the artists transformed New York's Broadway and 21st St. into a typical London street scene. Sites in Boston, below Scollay Square, became quarters of Paris. Quebec, where even the street signs and billboards are written in French, had dozens of spots that required only minor changes to convert them into Normandy villages.

One sequence in the picture takes place at a secret airport on the French coast. To simulate this setting, there was selected a farm with a low rambling stone house and typically Euro-

pean stone wind-mill. The meadow where the plane lands was completely surrounded by the kind of hedgerows with which our invasion troops became so familiar in Normandy.

For the film, the Boston Red Cross (composed of two Beacon Hill mansions) became the O.S.S. headquarters in London. The famous Liggett Estate, an exact replica of a famous English manor house and now part of Boston College, was used as the locale of the O. S. S. training center in the English countryside.

Toward Greater Realism

Director Henry Hathaway, a stickler for realism, points out that studio sets invariably look theatrical, no matter how closely they duplicate the real thing. "On the sound stage," he explains, "a director rehearses a scene the way it will be most effective dramatically. Then he has it lighted by experts and photographs the results. On location this is impossible. The director is forced to take whatever light is available and devise his action to fit. The result has an authentic newsreel atmosphere, surprisingly different from a studio-made film, and one that is especially vital and dramatic for factual stories."

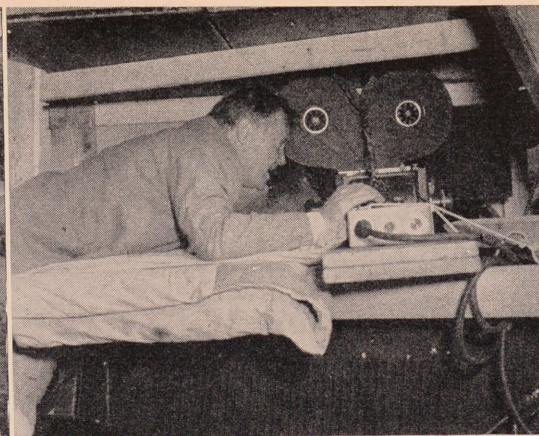
The problem of moving camera, sound and lighting equipment, plus props, costumes and tools a distance of 3,000 miles to location sites proved something of a stickler for a while. Finally, in order to condense rolling stock, a giant 35 ft., 16 ton, semi-detached trailer truck was purchased and converted into a portable studio.

The vehicle was especially converted to carry wardrobe, properties and technical equipment, and was sent on ahead, crossing the continent in 8½ days. The cast and crew followed by plane.

From the entertainment standpoint, "13 Rue Madeleine" is a top-notch action drama, skillfully directed and capably acted by a cast of actors most of whom were recruited in the actual locations. Every phase of production was well handled, but it is the photography that



Scenes from the 20th Century-Fox "newsdrama" photoplay, "13 Rue Madeleine," which was filmed entirely on location in New York, Boston, and Quebec. (Left) A scene taken in a corridor of the LaSalle Seminary outside of Boston. Concealing light units in such scenes was a major problem. (Center) A scene depicting the activities of the French underground—actually shot in an old cellar in Quebec. Mood lighting was achieved through effective placement of the simplest light units. (Right) An exterior night shot using ARCS to simulate moonlight. Other night shots in the film were actually heavily filtered daylight.



Behind the scenes of 20 Century-Fox's documentary photoplay, "13 Rue Madeleine." (Left) In the courtyard of a seminary near Boston, the camera crew, atop an improvised parallel scaffolding, prepares to shoot a balcony scene. (Center) Strapped onto the hood of a moving automobile, the operating cameraman films an actual shot of action taking place in a car as it moves down the street. The shield built around the camera prevented unwanted reflections in the windshield. (Right) High up in an office building in Boston, Director of Cinematography Norbert Brodine, A.S.C., takes a light reading preparatory to shooting a scene.

most surely infuses the film with factual mood.

Cinematographer Brodine—who filmed "92nd Street" and has just completed another scene-of-the-crime drama, "Boomerang," for 20th-Fox—has, as a result of these three films, come to be regarded as the industry's top specialist in the application of documentary approach to the photoplay. He is anxious to point out, however, that this advantage is the result of his having been assigned to three films of this type consecutively. He feels that any first-rate cinematographer can adapt to the technique by eliminating photographic "frills" and using simpler, more realistic lighting patterns.

Down-to-Earth Camera Approach

The documentary style which he used to such good advantage on "Rue Madeleine" was developed by Brodine mostly through trial and error while he was filming "92nd Street," since that picture involved an almost complete reversal of previously standardized studio techniques.

On that first picture he mounted mushroom-type photofloods on strips to be used for general illumination and employed conventional photoflood lamps in bowl-type reflectors for *fill* illumination, spotlights being reserved for *key* lighting. On the second film, however, because there were such wide areas to be lit, several senior spots were taken along for general illumination in addition to the photoflood units. The seniors were especially useful in interior scenes in which exterior backgrounds could be seen through windows. Because these exterior backgrounds sometimes ran as "hot" as f.16, it was necessary to greatly increase the interior illumination to balance. In *panning* from an exterior to an interior scene, of course, the aperture opening was gradually increased during the *pan*.

"In lighting these actual locales," Brodine explains, "we were striving to maintain studio finish, plus a newsreel authenticity—while still adhering to a rigid shooting schedule, of course. Often, we would walk onto a set we had never

seen before and have to start lighting it immediately. The main problem was to keep our lighting from going flat, since there were no parallels from which to hang lights—especially back-lights and top-lights that give effective separation to the actors."

Working Under Pressure

Because of the time element, there was no possibility of "studied" lighting. The proper patterns had to be produced almost instinctively, working toward the best results possible within the physical proportions of the set. Often these proportions were barely adequate to get all of the equipment plus the actors into the room. Ceilings were frequently only 6 inches above the heads of the players. In cases like this, it was a real problem to place the lights so that they would give the effect without actually showing in the scene.

Sometimes, when the problem of light placement became just too baffling, ways were found to introduce actual lighting units, or "practicals," into the scene. Shooting one sequence in a quonset hut, for example, lighting was a serious problem until the cinematographer placed a series of drop-lights down the center of the hut, which not only solved the lighting dilemma, but added rich mood to the scene.

On the first picture the studio made in this manner, electrical current was secured by tapping into main circuits all along the route. On "13 Rue Madeleine," however, generators and transformers were carried so that the necessity of tapping current was eliminated.

Sound equipment was broken down and installed into fourteen portable aluminum cases that could be quickly and easily connected up in series. Simple fish-pole type sound booms were used throughout a majority of the filming. *Dolly* shots were generally avoided, since no camera booms or cranes could be carried. Wherever called for, these were made with a small "scooter" type dolly.

Working in old mansions and private homes, the technicians had to use ex-

treme care not to damage any of the walls or furnishings. Before arranging any equipment, fiber mats were placed on the floors, the lamps were wrapped in asbestos to prevent scorching, and the camera was padded.

An Even Line of Approach

In a picture such as this, it is a temptation to go overboard for realism in photography, using exaggerated camera effects and wierd types of lighting. Brodine, however, feels that the cinematographer must use a certain amount of restraint to avoid too extreme a style. He says:

"Those of us in the industry, along with theatregoers in the large key cities, recognize and appreciate the artistry of low-key, cross-lighting, and the more extreme mood effects. However, in making pictures, we must think of the people in the smaller towns who make up the majority of our audiences. The butcher, the baker and the candlestick-maker who pay their 35 cents to go to the movies on Saturday night, are anxious to watch certain stars and to be able to *see* their faces. I personally believe in avoiding effects that are too dark and extreme, and might prevent the audience from seeing the faces of their favorites."

One technique that Brodine improvised with excellent results, was for scenes in which characters inside a car are shown speeding down a road with the camera in close, recording the action and dialogue. In the studio, such a sequence would have been easy to make. A dummy car, cut-away in front would have been set up on a platform and made to vibrate to simulate motion. The moving background would have been projected on a translucent "process" screen behind the car, and a stationery camera would have photographed the whole effect.

In "13 Rue Madeleine," however, the camera (plus cameraman) was strapped onto the hood of an actual car and an overhead shade built so that the reflection of the equipment would not be picked up in the windshield. A series

(Continued on Page 110)

THE NEWSREEL CAMERAMAN

By Walter McInnis

(Cameraman, Movietone News, New York)

(Editor's Note: This paper was presented in a symposium, "The Newsreel—Its Production and Significance," at a meeting of the Atlantic Coast Section of the Society of Motion Picture Engineers. It is re-printed here from the SMPE Journal by special permission.)

FIFTY years ago this October, Hammerstein's Olympia Music Hall rang to the cheers of an enthusiastic audience as President McKinley's Inaugural Parade was re-enacted in all its pomp on a motion picture screen.

In 1927, the Fox-Case Corporation launched its famous Fox Movietone News. It was instantly popular and the public who had become sound conscious overnight, received it with great acclaim. Before long the silent-type newsreel became antedated and just as quickly so did the silent type of coverage suffer a momentary lapse. All newsreel stories were covered with the prime thought in mind, "How is it for sound?" This was

purely a transition period. The newsreels had found their voice, but had not yet learned to talk.

Public acclaim for the sound newsreels was not to be denied. Before long all five major newsreel producing companies were operating sound trucks throughout the world, although none quite so extensively as Fox Movietone. It surely seemed as if the day of the silent camera had waned, but already the pendulum had reached the limit of its swing and was enduring that split-second battle with inertia before returning. In other words, motion pictures with sound were no longer newsworthy just because they had sound. Now, the sound had to be justified, and thus the newsreel commentator was born. It soon became apparent that many newsreel shots could be covered "MOS"—or in newsreel parlance, "mitout sound"—and joyfully, cameramen rushed to their respective attics and reverently dusted off the old silent cameras.

Aided and abetted by the newsreel editors who once more had become "coverage conscious" the pendulum raced back across its arc with increased momentum while the amount of field-recorded sound that was heard in the newsreel became reduced to nearly the vanishing point.

During this period many improvements in sound camera equipment were made by the Wall Camera Company of Syracuse. A new compact self-contained camera, comparable in weight to a silent Mitchell camera, and requiring a light 12-v storage battery for its operation, was delivered to Movietone cameramen. It had the first of the popular D-type intermittent, a rack-over arrangement for critical focusing through the objective lens, and a right-side-up finder. This camera could be used with a 400-ft. magazine as well as the 1000-ft. type, an important weight decreasing factor. All of the restrictions imposed upon cameramen by the use of the old-type sound camera equipment were eliminated with this new camera. The sound equipment, too, had become very portable and movement became almost as unrestricted as with the silent camera. Another important improvement was the Akeley gyrotripod permitting smooth "pam" and tilts coupled with ruggedness of construction. For nearly all types of stories this tripod is still unsurpassed.

Newsreels today show the result of 50 years of progress. No small tribute to the newsreel institution is the record of combat coverage in the last war. The pool of war correspondents of the five major producing companies was responsible for much of the documentary film which will provide the motion picture history of the war. Combat cameramen attached to the Armed Forces rapidly acquired the newsreel technique under the tutelage of many oldtimers in the business. In fact, at this office and at the March of Time Newsreel Cameramen School operated during the first year of the war, hundreds of fighting cameramen were put through these two institutions. The graduates in turn trained the great body of fighting cameramen who have given us the complete history of World War II in motion pictures.

In October, 1929, in the pioneer days of sound newsreels, I was given an assignment to go to India on a tiger-hunting expedition. Before leaving, a rush call came for a lightweight outfit to make pictures with sound aboard the dirigible *Los Angeles* on a test run over Philadelphia and New York. We took off at 5:00 p.m. and made pictures of the crew's quarters and other interiors. Approaching New York approximately at 8:30 p.m., with the light not too good, we took a chance and made some night shots of the City. The Commander of the *Los Angeles* was good enough to describe the time and

(Continued on Page 110)



ACHIEVEMENT AWARDS FOR OUTSTANDING ACCOMPLISHMENT in production of "Best Years of Our Lives" were presented last month by editors of Look Magazine to handless war veteran-actor, Harold Russell, left; producer Samuel Goldwyn; and Director of Photography Gregg Toland, A.S.C. Bob Hope, extreme right, made the presentations last month in Hollywood.

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COLOR cinematography opens up a vast new field of possibilities to the advanced amateur and semi-professional film producer—but like all other effective techniques, it also introduces certain special problems that must be solved in order to achieve the best results.

The color emulsions available to the 16mm. film-maker include standard Kodachrome (Outdoor and Type A), the new Kodachrome Commercial, and AnscoColor. All of these stocks are similar in general make-up, but have their separate differences in quality and in processing procedure. Kodachrome rather flatters colors and gives a rich, vibrant rendition. AnscoColor, is slightly softer and gives a very natural rendition of colors.

All color emulsions are slower in speed than the more widely used black and white emulsions. They also have a narrower latitude, which means that exposure must be precise in order to get a faithful recording of the scene.

The Nature of Kodachrome

Kodachrome thus far has proved to be the most popular and practical color film for 16mm. use. Whether it will continue to be in the face of new materials now in development remains to be seen—but for now, at least, it is the emulsion we mean when we speak of 16mm. color production, so let us consider some of its characteristics.

Kodachrome is a subtractive monopack stock having three different color-sensitive emulsions superimposed successively upon one base. So finely distributed are these layers that their combined thicknesses scarcely exceed that of the single emulsion on conventional black and white film. Located between the surface layer (blue-sensitive) and the second layer (green-sensitive) is a yellow filter layer which holds the blue rays back from affecting the layer below.

When the film is developed, most of the silver salt is dissolved out, leaving a negative image in each layer which is dyed the color *complementary* to that to which it was sensitive. Because the silver salt washes out, Kodachrome film is almost grainless in character.

Outdoor Kodachrome is balanced for the color of "average" sunlight. Indoor, or Type A, has an excess of blue sensitivity which compensates for the reddish rays of Tungsten light. These two emulsions can be used interchangeably by using the correct compensating filters.

The new Kodachrome Commercial stock, a film developed exclusively for use as a master positive in making duplicating prints, has just been placed on the market. The film is balanced for Tungsten light, so that it is necessary to use a filter when shooting it outdoors. The original has an extremely soft, pallid quality which makes the image appear flat when it is projected. However, when duplicates are made from this original, they pick up just enough

The Cinema Workshop

(For Semi-Professional and Amateur Production)

9. Color Cinematography

By CHARLES LORING

sparkle and flattery of color to provide a perfect rendition of the color values of the scene. There is none of the harsh contrast and exaggerated color usually found in duplicates made from straight Kodachrome originals.

According to the manufacturer, the new Kodachrome Commercial has the same speed as the conventional type. However, in actual practice, it has been found that the Commercial stock runs almost a full stop slower than the other emulsion. This is a draw-back that will probably soon be overcome. For the moment, however, it will be necessary to flood the set with light—but the excellent results available more than justify this added exposure difficulty.

Principles of Color Exposure

As we have already pointed out, color stocks are slower and have a narrower exposure latitude than most black and white emulsions. In black and white cinematography, the latitude of the film is such that an error of as much as 3 or 4 stops can be satisfactorily compensated in printing. Not so with color. A variation of $\frac{1}{2}$ stop either way can be noticed by a discerning eye; and a variation of a full stop is usually sufficient to make the scene unsatisfactory for exacting uses. There is, of course, some possibility of correction in dupping, but even so, the margin for error is slim.

Generally, it is recommended that Kodachrome be shot in even light for best results. Certainly this is the easiest way to get a pleasant quality—and if the film is to be duplicated it is especially important because shadows tend to go black in this process.

However, this rule is not iron-clad, and very satisfactory results can be achieved with more contrast lighting if special care is taken during filming. In side-lit scenes without reflector fill, you must allow one full stop more exposure. In back-lit scenes, allow two full stops. In both cases, such compensation will cause the sky background to go very light, so that the scenes will not intercut with other scenes filmed in the same locale with average exposure. Therefore, such shots should be

heavily filled with reflected light in order to more evenly balance the contrast.

Since the exposure latitude of Kodachrome is limited, it is often impossible to hit an average exposure that will be satisfactory for every element of the scene. In this case, one must expose primarily for the most important element in the scene. This may be the area that is most prominent, such as sky or sea. In scenes where people appear prominently, you will, of course, expose primarily for flesh tones. In such scenes having a sky or sea background, there is always an abundance of stray light, so take your principle reading very close to the subject's face.

In overall long shots of sunlit sea or snow, your exposure will have to be cut down from one to two stops less than for a normal sunlit scene. If people appear in such scenes, therefore, they will be under-exposed unless you pour in a great deal of reflected light to build up the brightness of their faces. Always use silver reflectors; never gold, as these give too warm a tone to faces.

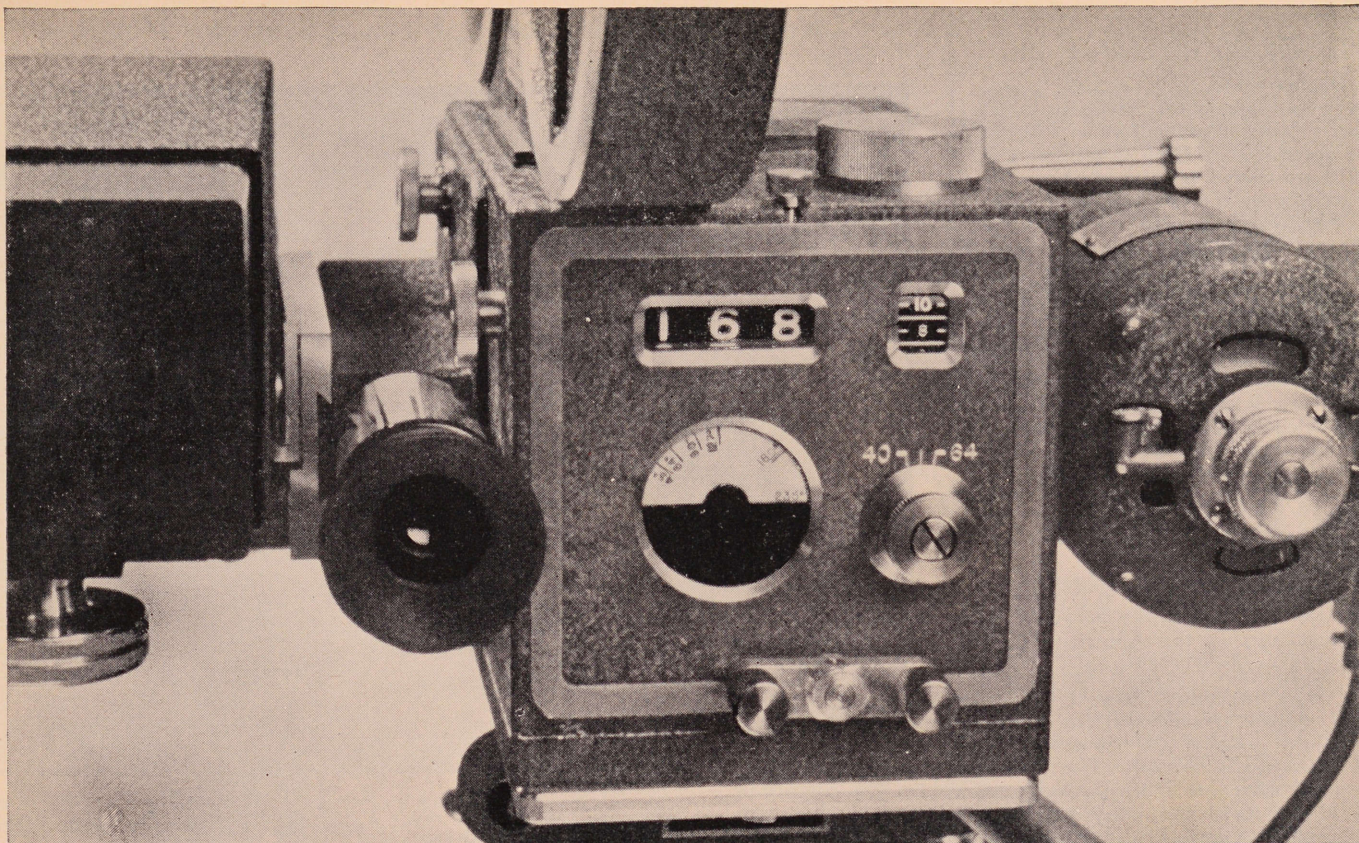
Many times in a scene, there exists a great difference in brightness between sky and foreground. In this case, rather than exposing for the foreground and allowing the sky to "burn up," as might seem logical, it is wiser to use a polar-screen filter which will darken the sky, but leave the other color values of the scene unchanged. This device is also useful in eliminating harsh reflections from water, glass, or other reflecting surfaces.

Color Temperature

In color cinematography, one must be concerned, not only with having *enough* exposurable light, but with having the right *quality* of light as well.

In exterior photography, the quality or *tone* of the light varies greatly with the location, the season, and the time of day. This variation in "color temperature" is measurable in units known as *degree Kelvin*. The temperature of so-called "average" sunlight is in the neighborhood of 6000 degrees Kelvin, and

(Continued on Page 96)



From a picture taken with a Maurer 16-mm and enlarged from the 16-mm frame

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In outdoor work where the light is varying, the shutter may be used to control exposure. A manual control knob makes available any desired opening between the completely closed position and the full

235° opening. A small circular dummy shutter on the rear of the camera shows the shutter opening at any instant. This indicator is calibrated in degrees at intervals of 1/2 lens stop.

Automatic fades of 40 frames duration are made by turning the fade control knob to the left; *automatic* fades of 64 frames duration by turning the knob to the right. The shutter closes at a non-uniform rate that produces a smooth effect over the entire fade. At the end of the fade the control knob snaps back to neutral position.

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GEORGE MEEHAN, JR.

George Meehan, Jr., A. S. C., passed away on February 10th, following an illness of several weeks. Born in Brooklyn 56 years ago, he came to California in 1910 and started as an assistant cameraman for comedy producer-director Henry Lehrman at Fox in 1916. He served with the photographic division of the Signal Corps in World War I, being assigned as official photographer for the U. S. Army General Staff.

Upon release from service, he returned to Fox studios, where he was promoted to first cinematographer on comedies a few years later, and shortly thereafter graduated to Director of Photography on feature productions. For the past 15 years, he has been associated with Columbia Studios. He is survived by his widow.

ASC Technical Meeting

Another in the monthly series of technical meetings of the American Society of Cinematographers will be held at the ASC clubhouse on evening of March 3rd. "Flash Tubes—A Potential Illuminant For Motion Picture Photography?" will be presented by Donald W. Prideaux, associated with the Lamp Department of General Electric Company. The topic and demonstration will include the characteristics and application of repeating flashtubes—developed prior to the war and since greatly improved—which are considered important new photographic light sources with potential use in professional motion picture photography.

Gregg Toland, ASC, also expects to disclose information on a new crankhead and parallel recently designed and built by the Samuel Goldwyn Studios as aids in production.

Dinner meeting for ASC members at the clubhouse on January 28th had several prominent directors present as guests of individual members. Hugh Brill and Pat Patrick enlivened the proceedings with fine entertainment for the large gathering—the former with some intriguing card tricks, and Patrick with excellent comedy monolog routine.

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New Victor Animatograph 16mm Projector Model



HAILED as a great improvement in the design, performance and economy of 16 mm. sound motion picture projectors, the new Victor Model "60" has been announced by S. G. Rose, president of the Victor Animatograph Corporation, Davenport, Iowa.

"We are especially proud to announce this projector," commented Mr. Rose, because we are able to offer greater value in a 16 mm. sound projector with many mechanical refinements at a price which is only a three per cent increase over prices prevailing at the time of federal decontrol of the photographic industry. "Further," continued Mr. Rose, "our low price is only 10 per cent over 1941 figures which we believe, in view of tremendously increased labor and material costs, is an outstanding accomplishment in the industry. Victor will continue to strive for better products at fair prices," he concluded.

The new projector which Mr. Rose announced is housed in streamlined, aluminum cases and contains many mechanical improvements which are the result of 36 years of precision engineering by Victor.

This machine is a multiple-purpose unit for use with either sound or silent film and includes jacks for use with a record player or as a public address system. It includes reverse operation and has the advantage of still picture projection.

Among the many new features is the Instantilt—a device which centers the picture on the screen at the touch of a finger. Replacing the outdated knurled knob, this unique improvement utilizes a counter-balance which causes the front of the projector to rise merely

by "pinching" a conveniently-placed lever.

Another outstanding improvement is the new Duotrol. This provides separate controls for both bass and treble tones which permits emphasizing of high and low frequencies independently of each other. This produces full harmonic value of sound and is instantly noticeable in music of extremely high and low pitch. Acoustical problems are minimized by this dual tone control.

Of interest to all users will be the new Clutch-Controlled Rewind. This feature permits fast, safe, convenient rewinding of film without the need for shifting belts or reels.

Still another new feature is a leveling device which compensates for uneven projection surfaces.

Compact and portable as today's luggage, the Model "60" retains the many features of former Victor 16 mm. sound projectors. The exclusive safety film trip, 180-degree swing-out lens mount, exclusive framing screw adjustment, spira-draft lamphouse and duo-flexo pawls are all time-tested Victor projector features that are included on the new Model "60". The use of either 750 or 1000 watt projection lamps is optional.

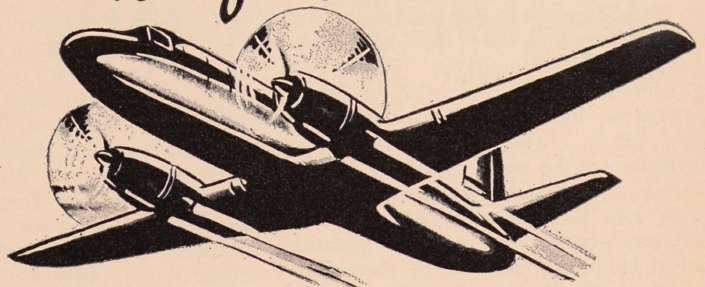
The optical system on the Model "60" is straight-lined, permanently aligned at the factory and includes a coated two-inch F:1.6 projection lens as standard equipment. Other lenses up to four-inch are instantly replaceable.

The sound system contains a stationary sound drum with a micrometrically set sound lens. It provides equally sharp response from regular or reverse prints, black and white or color. The exciter lamp is rated at 100-hour life instead of the customary 50 hours.

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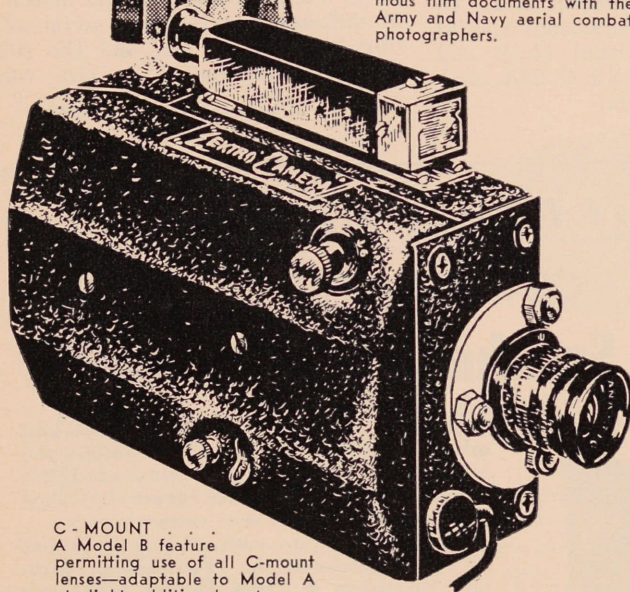
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Morse to operate smoothly and dependably along-
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erated dependably and accurately under incessant
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thoroughly and extensively redesigned this camera
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Cinema Workshop

(Continued from Page 92)

the outdoor Kodachrome is balanced for this average.

However, in the early morning there is an abundance of blue rays in the light; whereas, in the late afternoon the red rays predominate. These red rays sometimes add warmth to landscape scenes, but are quite unflattering to skin tones. Best color temperature uniformity can be maintained by shooting Kodachrome between the hours of 10 a.m. and 3 p.m., although an hour either way during the summer months is permissible. It is well to remember that when shooting color out of sequence from day to day, it is best to record the time of day that each scene was shot and try to duplicate that time in consecutive shots.

For the color cinematographer who wishes to be especially exacting, a *color temperature meter* has been developed to measure the quality of light, plus a set of 22 matched Harrison filters for use in correcting inconsistencies in color quality. Aside from normal compensation, these filters may be used to subtly "heat-up" or "cool-down" a scene for special effect.

In indoor color cinematography, also, the color temperature factor is important. The new Type A Kodachrome emulsion, as well as the Commercial stock, are balanced for a light of 3200

degrees Kelvin, and it is possible to purchase spotlight bulbs especially corrected to that temperature. Photofloods are a bit warm in tone, but the variation is usually not enough to cause trouble.

However, there are certain other factors that may cause a substantial variation in the color quality of interior light. The fluctuation in house current voltage, for instance, is important. Photofloods, as they become used, become warmer in tone. But, perhaps most important, is the fact that walls and costumes of a certain color reflect an abundance of that color to the extent where it may substantially influence the quality of the flesh tones of the players.

Therefore, color temperature cannot be ignored. For best results it should be measured and the correct filters used to insure overall consistency.

Concerning other types of filters for color, there are two marketed by Eastman for converting Type A film for outdoor use, and vice versa. There is also a haze filter which is effective in screening out the invisible ultra-violet rays which are abundant at high altitudes. We have already mentioned the type 1A Pola-screen filter for eliminating reflections and darkening skies. In no case (except for occasional special effect) should conventional black and white corrective filters (K2, G, 23A, etc.) be used with color film.

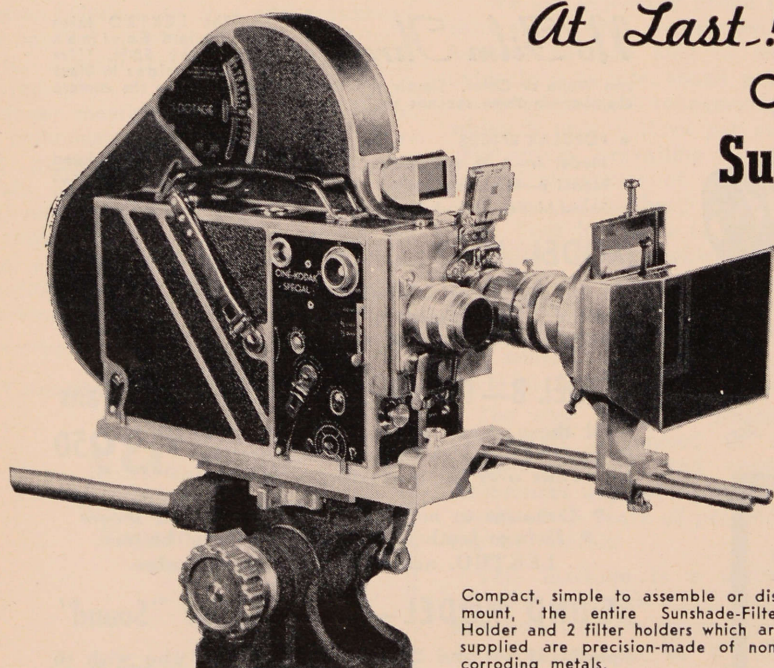
Using Color Effectively

The use of color in cinematography vastly increases the film-maker's opportunity for gaining forceful audience reaction and emotional response to the action of his film. It also provides another powerful artistic medium for the expression of screen ideas. The possibilities are practically unlimited, but, as in all such cases, there is a great temptation to go overboard and use color just for the sake of using color.

This should be avoided, since it is only by careful selection that any device gains force. A composition which too sharply calls attention to its *color*, loses attention from its *action*. A relatively neutral setting in which only one or two small areas show bright color will be much more effective than a scene in which many brilliant colors battle for attention.

In close-ups, for instance, natural flesh tones should set the key for the scene. Exaggerated make-up or jewelry will detract more than they add. Close-ups outdoors should be filmed in open-shade or on a cloudy bright day, as direct sunlight is rather harsh for such close-ups. Sufficient reflectors should be used to fill the shadows, and the direct rays be diffused by placing a scrim of netting between the sun and the subject. In such close-ups, it is also wise to

(Continued on Page 104)



Compact, simple to assemble or dismount, the entire Sunshade-Filter Holder and 2 filter holders which are supplied are precision-made of non-corroding metals.

At Last! — A Professional Type COMBINATION Sunshade & Filter Holder

For E. K. Cine-Special, Bolex, Filmo and other fine 16mm cameras. It resembles the professional 35mm type Sunshade-Filter Holders and Matte Box generally used with professional 35mm cameras.

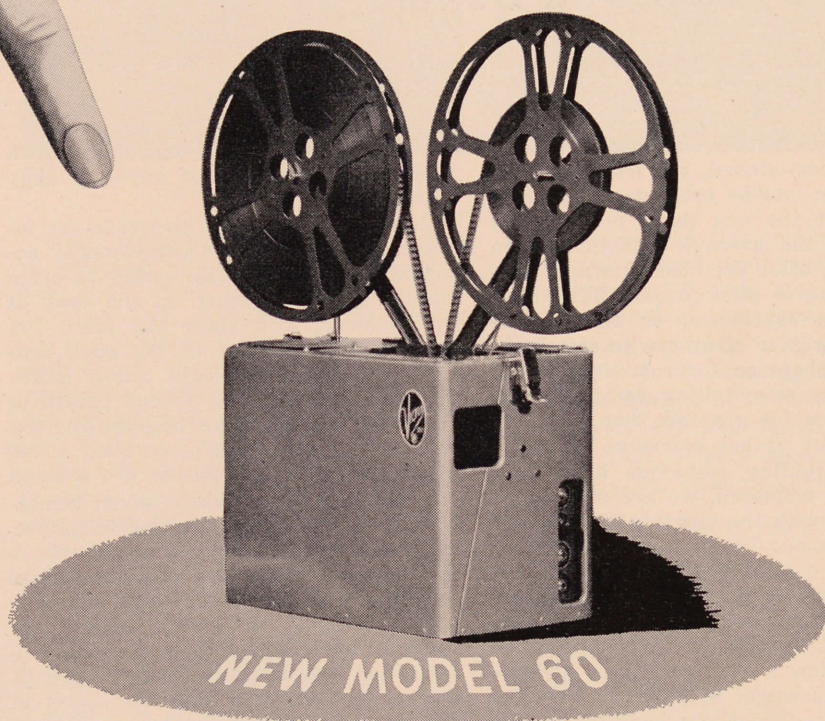
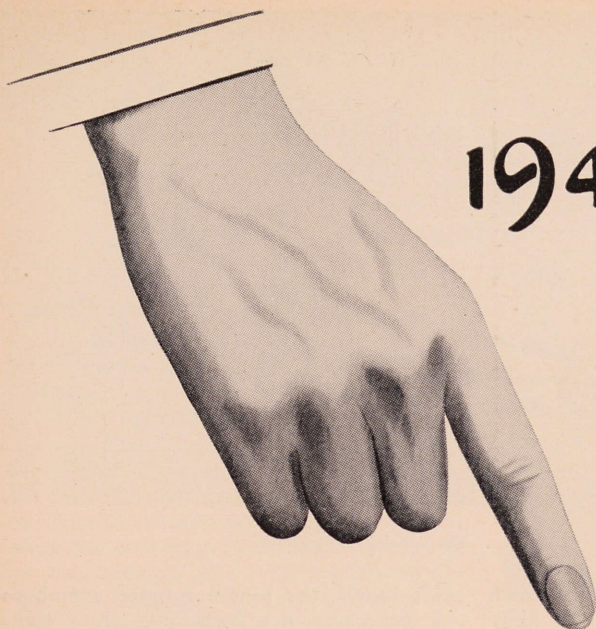
Designed for use with all popular types of 16mm cameras, the "Professional Junior" Sunshade & Filter Holder holds two 2" square glass filters, also a 2½" round Pola Screen with handle which can be rotated for correct polarization. By using our "Professional Junior" Sunshade & Filter Holder you will not require filters of various sizes as the 2" square filter will cover all lenses from 15mm to 6" telephoto.

The Sunshade-Filter Holder is supported by a double arm bracket. This attaches to a plate which you can fasten on to the base of your camera where it can remain at all times if you desire. The Sunshade-Filter Holder is demountable into 3 small units which, when not being used, fit into your camera carrying case.

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1947 Victor Triumph



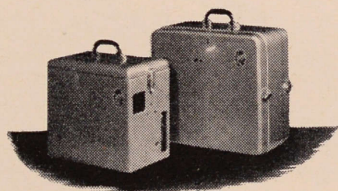
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ment field. As far ahead as its striking appearance are the new engineering refinements which provide greatest simplicity of operation and peak performance.

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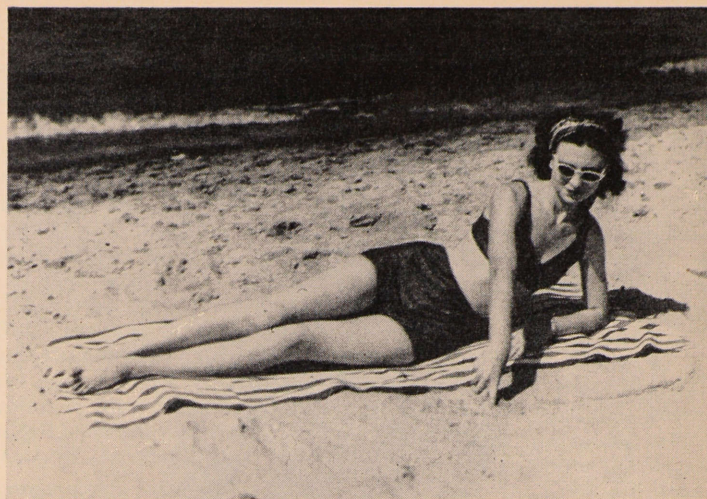
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MAKERS OF MOVIE EQUIPMENT SINCE 1910

Sea, Sand and Summer

By James R. Oswald



The popular daydreamer.

OBSERVATIONS among groups of serious-minded, but less advanced home movie enthusiasts, usually reveal that the one thing most sorely lacking in the average amateur screen production, after the basic fundamentals of good movie photography have been grasped, is *continuity*, or the careful *knitting together* of otherwise seemingly unrelated shots to form an interesting sequence or story-telling series of pictures. Taken for granted, then, that the essentials of proper exposure, composition and lighting technique have been fairly well mastered, we are sure to be confronted with the question by the novice cameraman, "Well, just what constitutes good continuity?"

The answer is almost as simple as the question, when one stops a minute to think about it. Life, itself, is continuity. Borrow a few pages from life's diversified progression of events, film them as they are *lived*, and you have continuity in the finest form. It's as easy as that.

Let me cite a typical example, which might well be a part of anyone's daily diary.

A favorite source of diversion, for instance, and I dare say a universally accepted one, is that little outing so often hastily gotten together on the spur of the moment. You know the kind, I'm sure. You glance out of the open bedroom window some bright, sunny morning upon arising, take a deep breath of the fresh, invigorating outside air, get that feeling the world's not such a bad place after all, and decide it's a swell day for a picnic. Without much hesitation, you dash over to the telephone, call up a few old friends, and maybe a few new ones, ask them how they'd like to join you in a little fun fest, and they enthusiastically agreeing, things are started humming. If it's a real old-fashioned basket picnic you delight in, you're sure to enter into the spirit of the occasion wholeheartedly, making it "Dutch Treat," each one bringing his

own lunch, the movie minded members of the party not forgetting their cameras, of course.

After everybody has been rounded up, with the roll call taken, you board a streetcar or bus, or perhaps the family auto, and begin the short jaunt into the country. Even while traveling, your photographic eye can't help interpreting that beautiful blue sky, sprinkled with fleecy white clouds, in terms of color on your own movie screen, long after this day of days has become but a memory.

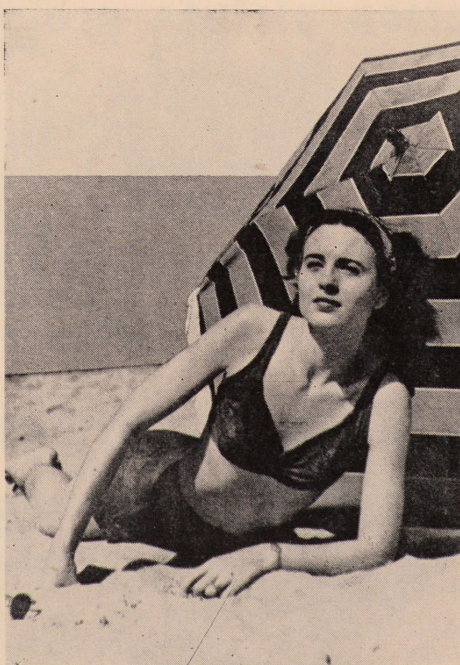
Arriving at your destination, it's just about lunch time, and since even an ambitious cameraman can't put forth his best filming efforts on an empty stomach, you quickly hunt up a secluded spot of your very own, and proceed to lay out the victuals, which all are anxious to partake of. (Funny how the country air always gives one such an appetite)!

After the last cup of steaming hot coffee has vanished, followed by the cus-

(Continued on Page 100)



Summer day—brisk breeze—pretty girl.



The typical sun bather.



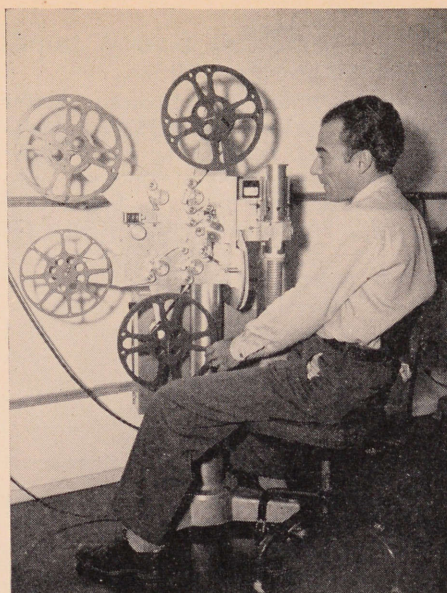
Annoying sand in shoes.
(Posed by LaVerne Meyer)

Acme Installs Latest Film and Sound Printers

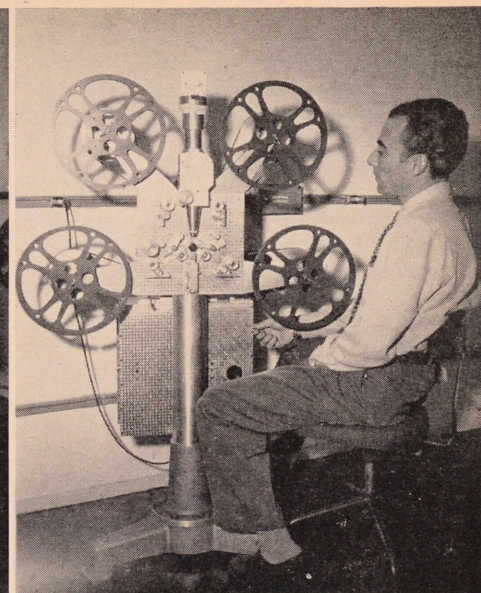
Acme Film Laboratories of Hollywood, specializing in 16 mm. film processing and color printing, has applied two new pieces of laboratory equipment to the field, which it is felt will radically improve the quality of narrow gauge movies.

The first of these is a new type automatic picture printer. This instrument is a fully automatic production printer, which has the additional and very desirable feature of allowing each scene of a cut color original to be color corrected. The movement of this printer is of conventional design, transferring the negative and print stock from feed to take-up continuously and in contact past the printing aperture. The control of the intensity and color quality of the light passing through the aperture are design features which show marked deviation from current engineering practice.

An opaque disc which revolves immediately before the fixed light aperture meters the amount of light which reaches the film. Slots of varying depth are cut in the periphery of this disc, and thus the volume of light passing through the aperture is changed. The disc is rotated by a solenoid which is energized through a microswitch that is closed or opened by notches placed in the negative.



Non-slip sound printer.



Picture printer.

Color correction of individual scenes is achieved by placing a transparent disc upon which correction filters are mounted and matched to the proper scenes behind the opaque exposure disc. Both discs revolve together, thereby placing the right slot and filter combination in front of the light aperture for each scene.

The second piece of equipment which is now in use at Acme is a 16 mm. non-slip sound printer.

The design of this printer is based upon well established principles that have brought 35 mm. sound reproduction to such high standards of quality. The actual printing is done by contact over a freely rotating drum, whose motion is filtered by a flywheel action. This avoids slip and flutter caused by printers that employ sprocket wheels.

Early tests show that this printer

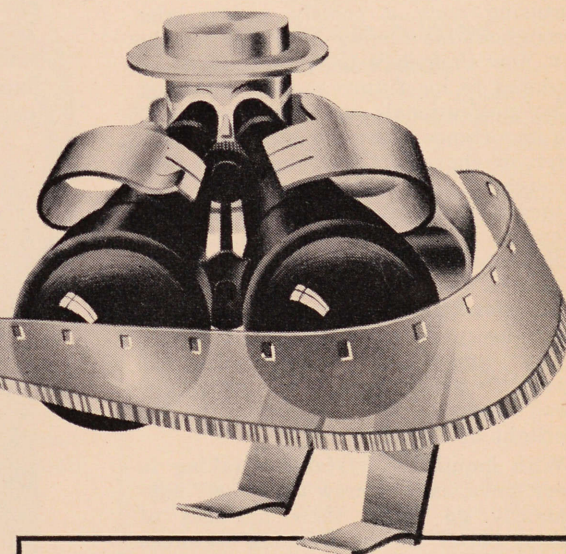
(Continued on Page 100)

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STAINLESS PRODUCTS

Sea, Sand, Summer

(Continued from Page 98)

tomary smoke or Coke while enjoying the serenity of the surroundings, you're ready for a little afternoon fun, be it a quiet hike through winding woodland trails, a refreshing swim in cool, challenging waters, or a hearty gallop on horseback, inspired by that real rural atmosphere. The beach is near by, all in favor say "aye," and, unanimously, you start the short trek over to the sun baked sand of the lake shore. On the way, however, you stop off long enough to change from leisure togs to bathing suit, and you're all set for a whirl of merriment and movie making.

For the alert cameraman there's plenty of action, lots of thrills and excitement in swimming, itself, to be sure, but today you're out for something *more*. You've tired of that old run-of-the-mill routine, and this time want to liven up those films with a new slant on things, a true *human interest approach*. So, turn your attention away from the water for awhile. Over there on top the hill, for example, a pretty and vivacious young feminine member of your party is making her appearance. What a shot for a camera loaded with color film . . . that maroon bathing suit she's wearing, white towel overhead flapping vibrantly in the breeze, golden sand sprouting with sprigs of green wild growth at her feet, all contrasted by Nature's own velvety blue sky backdrop!

And 'tis the wise movie maker, indeed, who will recognize the possibilities in featuring such a comely young miss throughout his filming activities for the day, now that she's been so amiably introduced to his future screen audiences. (The professionals are well aware of the importance of having a leading character, or characters, to "show" the fans through what might otherwise be just a mediocre miscellany of unrelated sequences. Who is more capable of tying such shots together than a lovely young lass, like the one you are already acquainted with?) Quickly, then, you ask her to accept this leading role. Modestly at first, and perhaps with a blush, she agrees to accommodate, for what girl doesn't secretly feel flattered to be the spotlight of attraction?

With inquisitive bystanders taking in every move, camera crew and "cast" nonchalantly go about their business of making better movies. Donning costumes to fit the occasion, the talented lady friend portrays with equal finesse the typical sun bather on a sultry day, the annoyance of sand in a beach walker's shoes, and the popular "daydreamer," sprawled out full length, drawing in the sand.

See how easy it is? One thing just naturally leads to another, and before you know it, you've got ideas galore. And for a superb climax, as evening shadows fall, if Fate provides one of those picturesque sunsets, be sure to top off the reel with a shot of your beautiful young glamor girl.

Acme Printers

(Continued from Page 99)

can resolve 16 mm. sound track of better than 6,000 cycles without loss of sharpness. This, of course, far exceeds the frequency range of contemporary commercial projectors but it is hoped that these will be improved in the near future.

Other features of the non-slip printer include reversible running direction, photoelectric light intensity control, and a variable width printing slit which may be used for handling color or dye sound track.

Victor Special Training For Service Men

Victor Animatograph Corporation is providing factory training for service and repair men of its distributors throughout the country in order to provide most efficient servicing of Victor projectors and equipment. Course, covering two weeks period at the factory, embraces detailed instruction on all steps in manufacture and assemblage, and proper methods of servicing equipment. For maximum results, trainees are enrolled in small groups at various intervals.

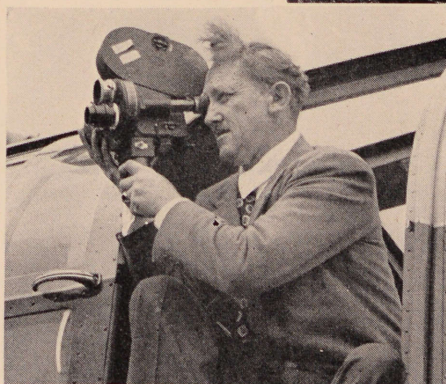
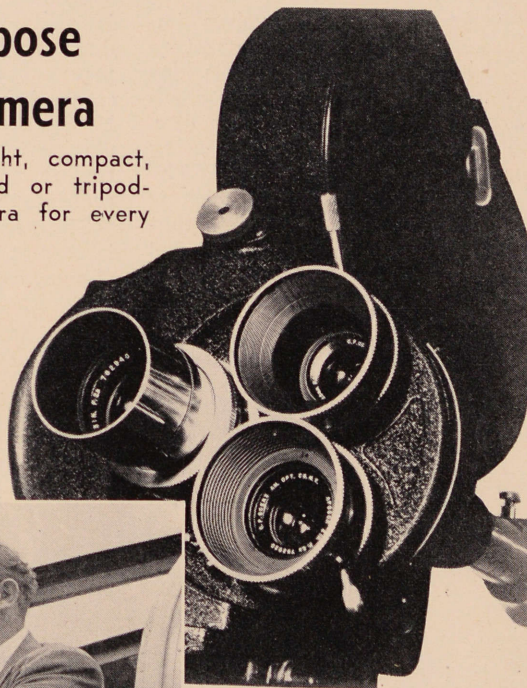
Cameraflex

announces

The All-Purpose 35mm Camera

THE CINEFLEX, a light, compact, motor-driven, hand-held or tripod-mounted 35-mm camera for every motion picture use.

Ideal for location work, the camera, including 24 volt motor, 200 foot film magazine, film and three lenses, weighs but 12 pounds.



JAMES SEELEY, A.S.C.
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THE CINEFLEX is a true reflex motion picture camera. You see the action through the taking lens while the camera is in operation. No parallax. You are sure to be in focus at all times.

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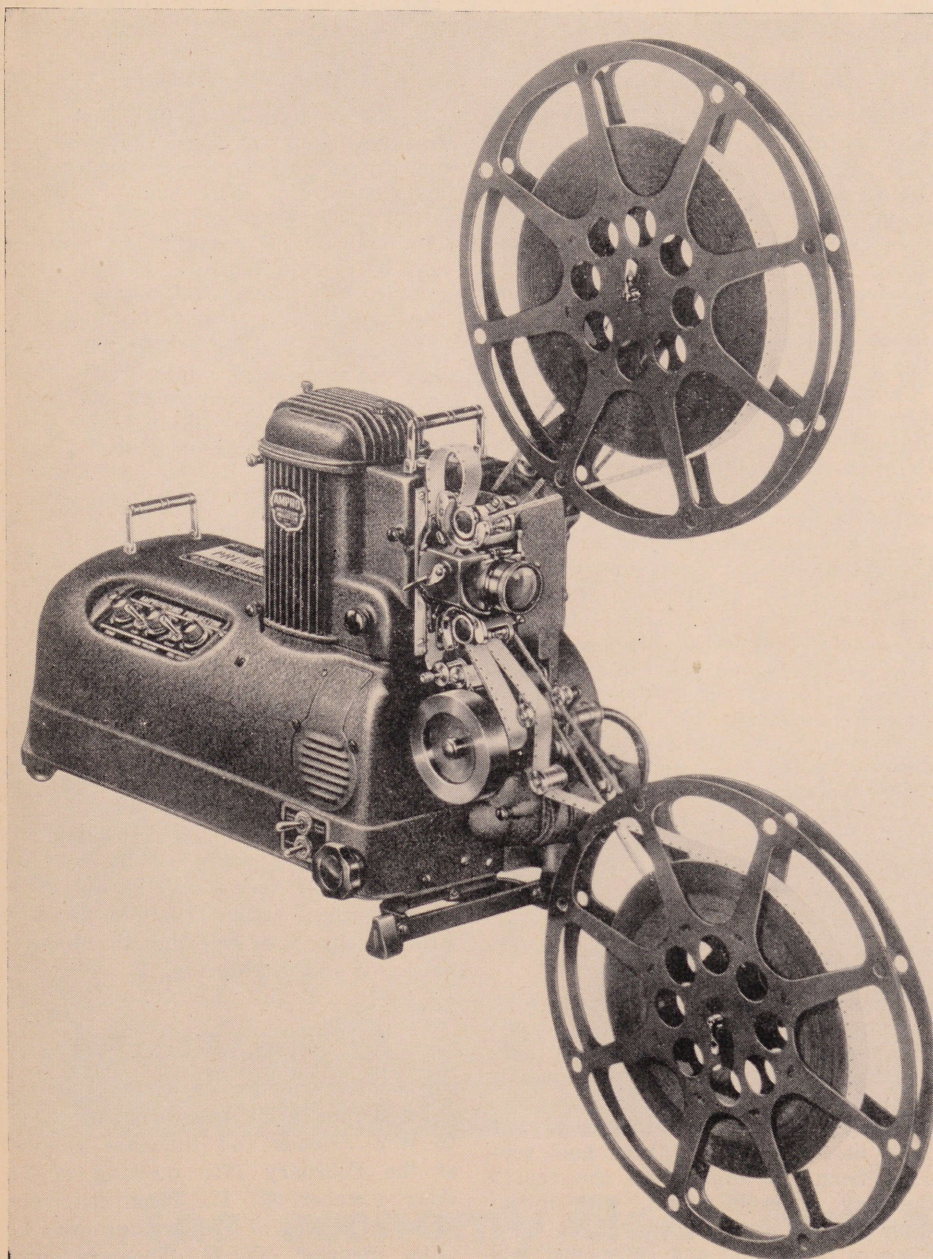
The Cineflex Camera

CAMERAFLEX CORP.

630 Ninth Avenue
Cable Address: Photoments

New York 19, New York
Circle 5-7240

Premier 20—New Ampro 16mm Sound Projector



A new sound-on-film 16 mm. projector, compact and easily portable for home use, as well as for classrooms, industry and average sized auditoriums, is announced by Ampro Corporation of Chicago, a subsidiary of General Precision Equipment Corporation of New York. It is the "Premier-20," heralded as the finest sound-on-film projector employing an incandescent lamp as a light source to come from Ampro, an impressive introduction in itself, considering the company's decade of pre-war experience in building 16 mm. sound projectors, plus their war record of supplying the armed forces with many thousands of projectors.

One of the exclusive new features singled out for particular emphasis is the new swing-out gate. It permits easy inspection and cleaning of aperture plate and pressure shoe without disturbing the focus of the projection lens. Other convenient features incorporated in the

extremely simplified design are: Long-wearing roller sprocket shoe assembly . . . opens and closes automatically with the film gate for easy, quick threading . . . also can be operated individually without disturbing the film gate . . . quick-centering tilting control knob . . . fast automatic rewind.

Ampro "Premier-20" is equipped for both silent and sound film speeds, still picture and reverse operation, with switches readily accessible on a centralized control plate. Coated super 2-inch Fl. 6 lens is standard equipment, easily replaceable by either 1, 1½, 2½, 3, 3½, or 4 inch coated super lenses. This sound projector gives brilliant illumination with standard prefocused lamps, up to and including 1000 watts.

The sound optical system projects light from the exciter lamp directly through semi-cylindrical lens, eliminating mechanical slit and mirror. Amplification is of high quality, with tone control for

crisp speech reproduction. Latest design 12-inch Jensen permanent magnet dynamic speaker has wide tone range and adequate capacity for moderate sized auditoriums.

Amprosound "Premier-20" operates on 50-60 cycles, 105-125 volts A.C. Use with converter on D.C. current for amplifier only. Projector motor operates on either A.C. or D.C. Complete unit includes projector, speaker, lens, lamps, 1600 ft. reel and standard accessories. New luggage type projector case and speaker case are also supplied.

SMPE Spring Convention in Chicago April 21-25

Society of Motion Picture Engineers will hold its 1947 spring convention at the Drake Hotel, Chicago, April 21st to 25th. It will be the first midwest convention of the organization for several years due to the restrictions prevailing during wartime.

The Chicago location will enable many members and others interested in professional and amateur motion picture photography and related techniques to attend the technical sessions. A fine program of technical papers is being arranged by the Papers Committee comprising Gordon A. Chambers, chairman, and vice chairmen Herbert Barnett, N. L. Simmons, and R. T. Van Niman. A. Shapiro functions as local arrangements chairman, while W. C. DeVry will take charge of luncheon and banquet arrangements.

Golf Events Filmed For Television

Camera crews of Telefilm studios of Hollywood recently filmed highlights and stars of the several major golf tournaments held on the Pacific coast via 16 mm. After speedy development and editing, the reels were planed to New York for broadcast over various eastern television stations.

35MM CAMERAS

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AMONG THE MOVIE CLUBS

New York Metropolitan

Regular February meeting was held on the 20th, at which time contestants' films in the 1947 Novice Contest were screened for voting by the members present.

In addition, film program included: "The High Sierras," by Alice Burnett; "El Turista," by F. C. Embshoff; "Along Our Western Trails," by H. Hensel; "El Rancho," by Mary Jessop; "Honeymoon Wanderings," by Joseph Laxer; "Holland," by Frances Mussett; "Aquarelle," by Marshall Nutt; "Vermont Calls," by C. L. Spaulding; "A Sap's Fable," by John P. Steele; and "Mexican Bull Fight," by Jacob Weiser.

Supplemental meeting, on February 5th, was designated as an Open House session. Instead of the usual procedure of having general session, several separate groups huddled around the room for general discussions on specific problems and subjects. Joseph Harley displayed his new Cine Kodak Special, and answered general questions; with Joseph Hollywood attracting a group to look over a Bolex 8. John Hefeale also attracted members who wished to get the lowdown on lenses, and shoot questions about the new Norwood exposure meter. This idea of small discussion and question huddles seems to be a fine one which might be adapted from time to time by the larger clubs which have a number of experts who can preside at the individual huddles around the room. Looks like many members would be inclined to ask more questions in such small huddles, rather than in general meetings.

Los Angeles Eight

Talk and demonstration of sound recording on paper strips, with sound track tape accompanying a member's film, was the outstanding attraction at the February 10th meeting of Los Angeles Eight mm. Club, held at Arden Farms Clubhouse. The paper sound recording method, because of its inexpensiveness, holds promise for adding sound accompaniment for 8 mm. subjects. In addition, several of the 1946 annual contest winning pictures were shown.

San Francisco Cinema

Cinema Club of San Francisco held its regular monthly meeting on February 18th at the Women's City Club, at which a splendid program arranged by Ben Nichols was presented. Highlight was a talk on coated lenses by Rudy Arfsten, which was followed by film program including: "Yosemite in Winter," by Nichols; "Flowers of Exotic Beauty," by Leon Gagne; and "Handweaving," by M. L. Dreyfous.

Southern Cinema

Eighth annual banquet of Southern Cinema Club of Los Angeles County was held on evening of January 25th at Knott's Berry Place, with 88 members and guests attending. Installation of officers for the coming year took place following dinner—the new officers being: president, John McCollum; vice president, Zenon Bonowic; secretary, Paul Moscoe; and treasurer, Gladys Van Winkle.

Club contest pictures, which were judged by members of the Montebello Camera Club with Estelle Gratay as chairman, resulted in the grand sweepstakes award going to Zenon Bonowic for his "A Bum in Yosemite." First prize in the 8 mm. division went to George Wellington for his "Summer—1946."

In the 16 mm. group, John McCollum won second prize for "Grand Canyon," and John Berkey drew third award for "Mail Call." Second prize in the 8 mm. division was awarded Walter Cummins for his "Christmas, 1946," while Doris Wellington took third with "Nature's Miracles." All winning entries were filmed in kodachrome, and the first two prize winners in each group were shown to top off the evening; along with sound-color films of the Bikini atom bomb tests.

Lummus Camera Club

Pierre Lambert has been elected group chairman for the re-activated movie group of the Lummus Camera Club, New York. Membership of the latter is composed of camera enthusiasts associated with the Lummus Company. The club's movie division will be held separate from the others—on the fourth Thursday of each month, with initial session slated for February 27th when "Camera Equipment and Technique" will be discussed. Initial contest is set for June 5th, with subject of "How I Spent My Week-end." Edited lengths of 75 to 125 feet are required from all entries.

Los Angeles Cinema

Capacity crowd of 400 attended the February meeting of Los Angeles Cinema Club held at the Ebell Club. Member Stanley Midgely showed his "Free Wheeling in Utah Parks," a prize winning entry in the Union Pacific amateur photographic contest of last year. Midgely detailed the personal experiences of a bicycle trip through Zion and Bryce Canyons, and his comments during the unreeling provided plenty of laughs.

"Treasure Trove of Jade," produced for the National Geographic Society, and Pare Lorents' "The River," were also shown at the meeting—latter two for member study of the technique of travelogue and documentary films.

Brooklyn Amateur

Winners of the 1946 film contest of Brooklyn Amateur Cine Club are: 16 mm. division; "Safari," by Charles Benjamin; "Vacation With Pay," by Irving Gittel; and "Virginia," by Fred Ursini. 8mm. division; "Barbara Sue Goes Camping," by Harold D. Cahn; and "Nutmeg Rambles," by Horace Guthmann.

Return visit of B. Erle Buckley—and an honorary member of the club—featured the meeting of February 5th, which was held at 1218 Union Street. Mr. Buckley spoke on "Composition," and illustrated by commenting on Charles Benjamin's "How Green Is the Earth." Also shown was an ACL library film, "Never Say Diet."

February 19th meeting was "guest night," and a splendid program of films was shown, including: "Indian Summer," by new member Bert Seckendorf; "Squeaky Kittens," by Walter Bergmann; "Life of a Fireman," by Harold Cahn; "Sketches From Colorado and Utah," by Charles Ross; and "Kaleidoscopio," by Dr. Robert Machado. "Squeaky Kittens" and "Kaleidoscopio," were "ten best" winners of 1946.

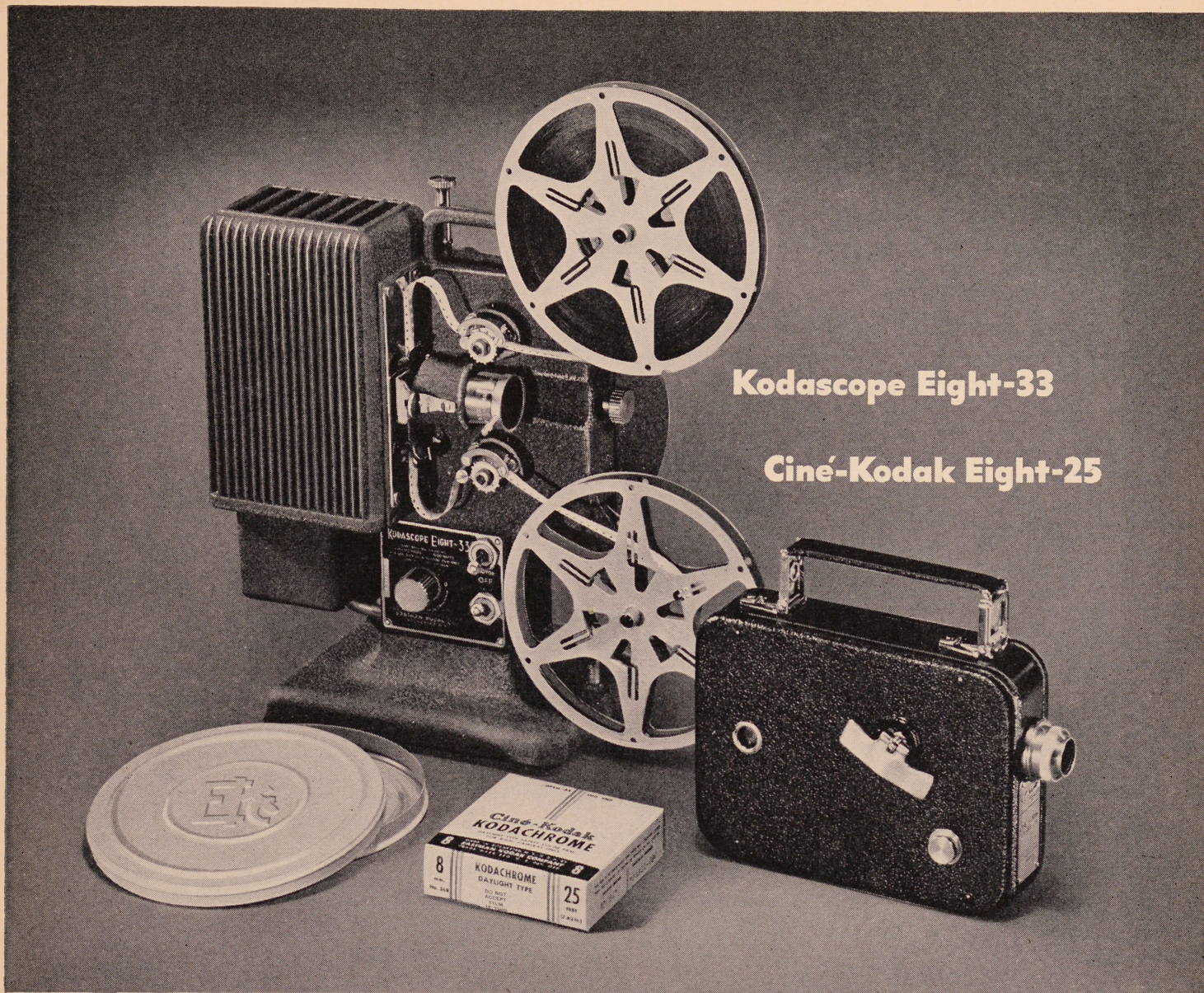
Announcement is made that the club's annual "Gala Night" will be held on April 25th at the St. Felix St. Playhouse, with program chairman Herbert Erles in charge of selecting the films to be shown on the program.

La Casa, Alhambra

Fred Evans, member of the Los Angeles 8 mm. Club, presented his "How to Win Friends and Influence People" at the February 17th meeting of La Casa member, C. H. Thompson, who Sharing honors of the evening was La Casa member, C. H. Thomsen, who showed his "Rambling Through British Columbia." Latter began in Vancouver in a trip north, and includes a forest fire, salmon run, regatta at Kelowna, and visit to a British Columbia trout hatchery at Girrad to display the world's largest rainbow trout.

Philadelphia Cinema

Program of members' films featured the February 11th meeting of the Philadelphia Cinema Club, held at Franklin Institute. Pictures exhibited included: "New York World's Fair," by Elmer K. Esser; "Spring and Summer Plants," by Irwin P. Boeshore; "The Effect of Dye Stuffs on the Temperature and Rise of Fabrics Exposed to Light," by Richard B. Stehle; "Yellowstone Park," by Belford Neff; and "Canadian Rockies," by A. E. Nichols.



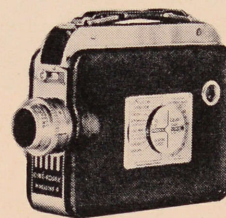
Kodascope Eight-33

Ciné-Kodak Eight-25

The "economy Eight" home movie team

Ciné-Kodak Eight-25 costs so little—\$50, plus tax—does so much with either full-color Kodachrome or black-and-white film. Shooting is simplicity, itself. The fast, *Lumenized* $f/2.7$ lens is fixed focus. And the unique exposure guide "dials" the right exposure for you. Ciné-Kodak Film for the "Eight-25"—including processing—starts at about \$2.25 per roll . . . enough to record 20 to 30 full-length movie scenes!

Kodascope Eight-33 will make the most of the movies you take. Its fast lens and powerful projection lamp provide all the light you need for living-room screens, its operating controls are few and simple. Price, \$68. Ask your Ciné-Kodak dealer for the full story—he may well have this fine movie equipment to show you right now! . . . EASTMAN KODAK CO., ROCHESTER 4, N. Y.

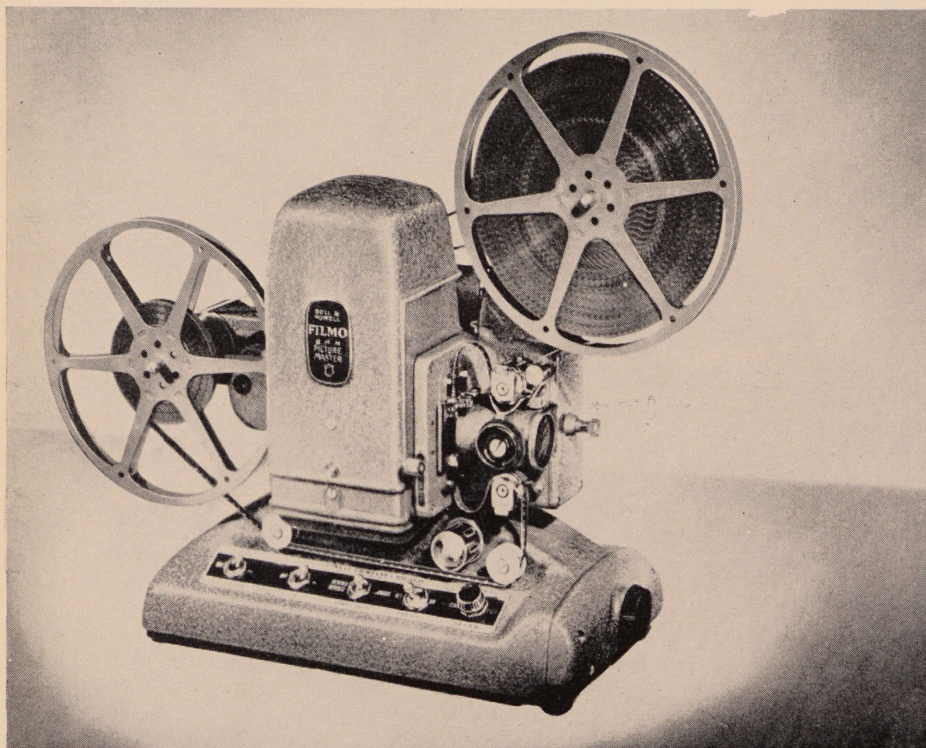


**CINÉ-KODAK MAGAZINE 8—
finest of all the "Eights"**

Slip-in loading with interchangeable Kodachrome and "Pan" Film magazines; fast, *Lumenized* $f/1.9$ lens—six accessory lenses; four operating speeds including slow motion; enclosed, adjustable eye-level finder. \$125, plus tax.

Kodak

Bell and Howell's New 8mm Picture Master Projector



Promises of a rosy postwar era for 8mm. movie-makers have been fulfilled with the announcement of Bell & Howell's brand new Picture Master 8mm. projector, which embodies features never previously offered to movie amateurs. Tests have proven the new model to be unequalled in the 8mm. field for picture brilliance, it is claimed. Uninterrupted production has been achieved, and a steady supply—limited at first—will reach the market from now on, according to Bell & Howell production officials.

Appearing in the Picture Master for the first time in any movie projector is a base-up projection lamp. This design, it is claimed, results in maximum lasting brilliance. "A blackening deposit is formed during the operation of any tungsten lamp," explains B&H, "and in the base-up design, this substance is carried upward, out of the beam, before being deposited. Thus the side walls remain clear for the life of the lamp, and the full power of Picture Master's illumination always reaches the screen." Further, B&H states, the base of the lamp remains even cooler during operation than that of the readily-replaceable lamp of present Filmo projectors.

Another feature is the near-achievement of "light without heat" for single-frame projection, it is claimed. A new heat filter protects the film, yet permits single frames to be viewed with several times the brilliance obtainable with any other 8mm. or 16mm. projector.

Among the Picture Master's newsworthy assets are the following:

750-Watt Base-Up Lamp. Non-blackening. Slips into place easily—no screw sockets. (500-watt lamp can be used if desired.)

Safe-Lock Sprockets. Long exclusive with Bell & Howell, now available to Filmo 8mm. owners for the first time. Error-proof, positive threading; protection for the film.

Centralized Control Panel. Affords fingertip activation of motor, pilot light, lamp, speed, reverse, and rewind.

Rewind. A newly-designed take-up and rewind mechanism permits effortless re-winding of a 400-ft. reel in less than a minute.

Reverse Projection. Instantly available, for comic effects, or "back-tracking," so dear to the hearts of home movie audiences.

"Still's" Shown With 40% of Running Brilliance. Single frames are projected with new brilliance, in complete safety.

Positive Focusing. Needle-sharp pictures at the turn of a knob. Easy, instantaneous compensation for change between color and monochrome film.

Hinged Lens Mount and Aperture Gate. Entirely new design facilitates threading, makes aperture plate and gate readily accessible for thorough cleaning.

All-Gear Forward Drive. positive action, built for a lifetime.

"Wind-Tunnel" Cooling. Cool air is forced in:

- (a) Around the film, at the aperture.
- (b) Through the motor.
- (c) Between inner and outer lamp-house walls.
- (d) Downward around the lamp.

Side-position exhaust blows hot air away from operator.

Filmocoted 1" F1.6 Lens. Precision-

made, designed especially for the Picture Master.

Die-Cast All-Aluminum Construction. Can't warp. Light to carry.

Self-Locking Tilt Mechanism. Easily adjusted to the right angle—and it stays set.

In addition to the foregoing, the Picture Master has fixed-axis framing, hardened-steel sprocket teeth, and a superior optical system. Main bearings and encased gears are pack in lubricant and sealed. Three-point "metered" lubrication of other moving parts is simple.

The Filmo Picture Master comes complete with 10-ft. cord, 400-ft. reel, streamlined carrying case, and choice of 750-watt or 500-watt base-up lamp.

AnSCO's Employee Bonuses

The 4,500 employees of AnSCO participated in distribution of a year-end bonus totalling \$260,000, according to announcement of E. Allan Williford, AnSCO general manager and vice president of General Aniline and Film Corporation. Amount is part of the \$625,000 fund voted as bonus for all General Aniline employees by the company's executive committee of the board of directors.

Visual Aids Catch Attention of Educators

Unprecedented interest of educators in audio-visual aids is being shown by educators at various state teachers' conventions. This information is disclosed by Ampro Corporation, which has set up exhibits and demonstrations of 16 mm. equipment at various gatherings of educators.

Cinema Workshop

(Continued from Page 98)

use a lens of sufficient focal length to throw the background somewhat out of focus, so that background colors and objects will not intrude into the main subject.

Color emphasis is important. The most brilliant color should be located at the most important point of action in the scene. If an unimportant element is brilliantly colored, it will steal emphasis of the scene away from that which is truly important.

It is a well-known fact that colors exert a powerful emotional influence. Yellow, green and blue are considered "cool," while purple, red and orange are considered "warm." Using colors with this factor in mind will help gain the desired emotional response from the audience.

In closing, it should be pointed out that color harmony is much to be desired in screen design. Complementary colors, such as red with green, blue with orange, etc., usually harmonize well, as do light and dark shades of the same hue used together.

NEXT ISSUE Part 10—Using Sound Effectively.

B&H Owners Protected by Lifetime Guarantee

Believed to be one of the most liberal and specific in the industry, the lifetime guarantee on all Bell & Howell cameras and projectors is of genuine importance to those who own Filmos or who contemplate buying motion picture equipment. Regardless of the age of the equipment, it is pointed out, replacement parts will be supplied gratis if performance is affected by actual defects in material or workmanship. Furthermore, within 30 days after the equipment is purchased the company will absorb all labor costs involved in repair work covered by the guarantee.

Engineering officials of the company state that the liberal policy outlined has been made possible by careful choice of materials, meticulous training of shop personnel, and the application of quality control throughout the manufacturing process. The lifetime guarantee, it is emphasized, is part of the company's campaign to underscore the slogan, "That's What We Mean by Precision-Made."

Fox Joins Radiant

John W. Fox has joined Radiant Manufacturing Co. as district manager for the southern states. Previously, he was a visual aids specialist with the government and a naval officer in charge of training and entertainment film distribution.

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All over the World, film technicians make SURE of highest quality film processing when they choose

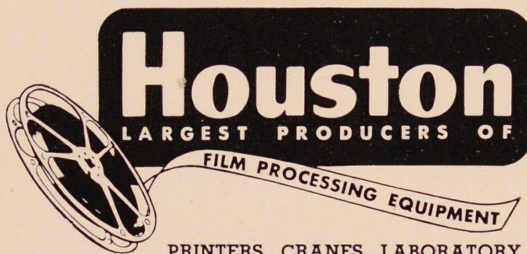
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- ★ Economical operation, a complete machine.

HOUSTON MODEL 10 . . . for 35mm negative or positive film, processed at speeds up to 2400 feet per hour. Early delivery.

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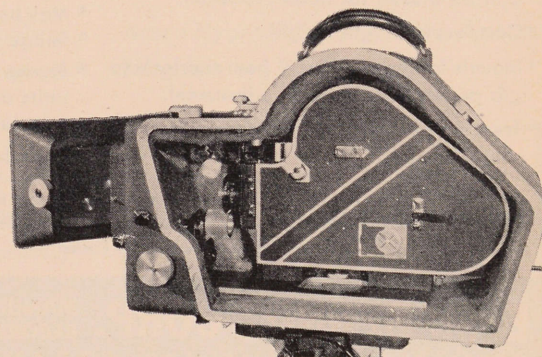
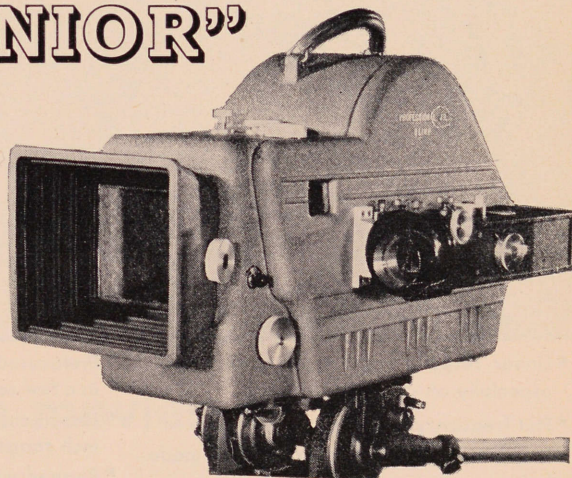
for Eastman Kodak Cine Special Camera

This Blimp, constructed of Dow Metal (magnesium) is thoroughly insulated for absolutely silent operation. The blimp has these exclusive features:

- follow focus attachment for changing lens calibrations while the camera is in operation
- viewing magnifier mounted on top of blimp for focusing while camera is mounted in blimp
- arrangement for opening camera viewing aperture trap for focusing from the outside of the blimp
- pilot lights to illuminate lens calibrations and film footage indicator.

Blimp takes synchronous motor drive which couples to camera. It has a leather carrying handle mounted at the top. A dovetail bracket is provided to mount an erect image view-finder for following action.

Manufactured Exclusively by the Makers of "Professional Junior"
Tripods and Other Fine Camera Accessories.



Academy Nominations

(Continued from Page 83)

the final voting by Academy members, marks a change in procedure over practice of the past several years. Previously, five productions in each division were selected for the final selection whereby the ones receiving the highest number of votes were adjudged winners of the Academy Oscars. In limiting the candidates to only two in each division, Academy officials feel those voting will be able to concentrate consideration more closely.

As in the past, the two final candidates in each division were selected from all of the releases of 1946 by the entire group of Directors of Photography and members of the American Society of Cinematographers. Special screenings of productions nominated for cinematographic consideration were staged by the Academy during the past two months to provide each voter with an opportunity to make his own selections for the primary balloting.

Outstanding Cinematographers

To those interested in the art of cinematography around the world, it is ad-

vised that these four productions be viewed and studied carefully as best examples of motion picture photography. Arthur Miller, ASC, whose "Anna and the King of Siam" is a finalist in the black-and-white division, is a veteran Director of Photography on Hollywood productions, and the winner of the Academy Award on two previous occasions—for outstanding photography on "Song of Bernadette" and "How Green Was My Valley." "The Green Years," by George Folsey, ASC, also was photographed by one of the topnotch Directors of Photography in the industry.

Charles Rosher, ASC, who shares joint credit as Director of Photography on "The Yearling" with Len Smith, ASC, and Arthur Arling, ASC, is a veteran of many years, and won an Academy Award designation in 1928 with Karl Struss, ASC, for "Sunrise." Smith is also a veteran of prominence, and last year was in the finals for his color production of "National Velvet." Arling, the junior in the group spotlighted, was an officer in the Navy during the war.

Joseph Walker, ASC, who gains recognition for Photographic Direction on "The Jolson Story," is also an outstanding cinematographer with many important productions to his credit.

Heffernan's 10 Commandments of Movie Making

Leo J. Heffernan, of New York, whose accomplishments in amateur film making are nationally known, was recently asked by a movie group to outline his 10 commandments of amateur movie making. His most pertinent "10" are detailed for the guidance of those many movie enthusiasts who are continually striving to improve their films. Here they are:

Think in terms of movies, forgetting still photography. It is futile and wasteful to make color slides with your movie camera.

Have a central theme or plot, and strive to get a new or fresh approach to the subject.

Start your theme or plot with an idea that is thoroughly understood, and make each succeeding scene carry the story just a little further along a planned course. Do not let the interest lag even for a moment, and bring the story to a satisfying climax.

Avoid static shots unless their presence on the screen can be explained by the action of the plot. For example, a closeup of a flower is meaningless unless one of the persons in the film happens to come across it during a stroll or while visiting a greenhouse.

Do not spread your cine ideas too thin. Better a short movie than a weak theme dragged out for a full reel.

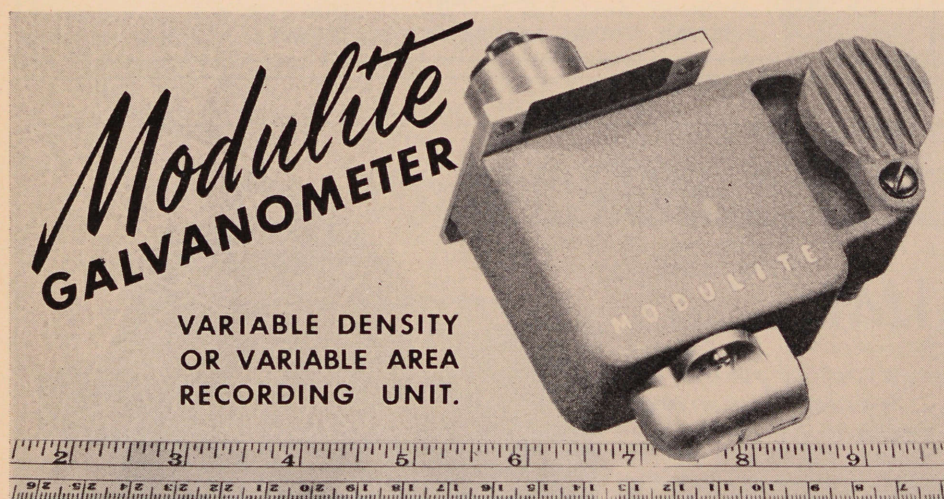
Never go over the same ground. If you show a particular kind of subject matter or develop an idea by means of a movie sequence, complete the sequence then and there. Don't jump around from one idea to another and then back again or your audiences will become bored and confused.

Keep your movie ideas neat—every sequence like a package. Present each bit of subject matter or incident, through intelligent photography and editing, so clearly that little is left to the imagination.

Surprise your audience once in a while, with a little unexpected twist in the theme or plot—but avoid hackneyed material or situations. Here is where the personality of a moviemaker shows up in his work.

Frame your movies in interesting titles.

Edit your movies to show the least interesting shots first, building up the interest-per-foot value until—at the end—your best shots are shown; and keeping in mind at all times that brevity is the soul of wit.



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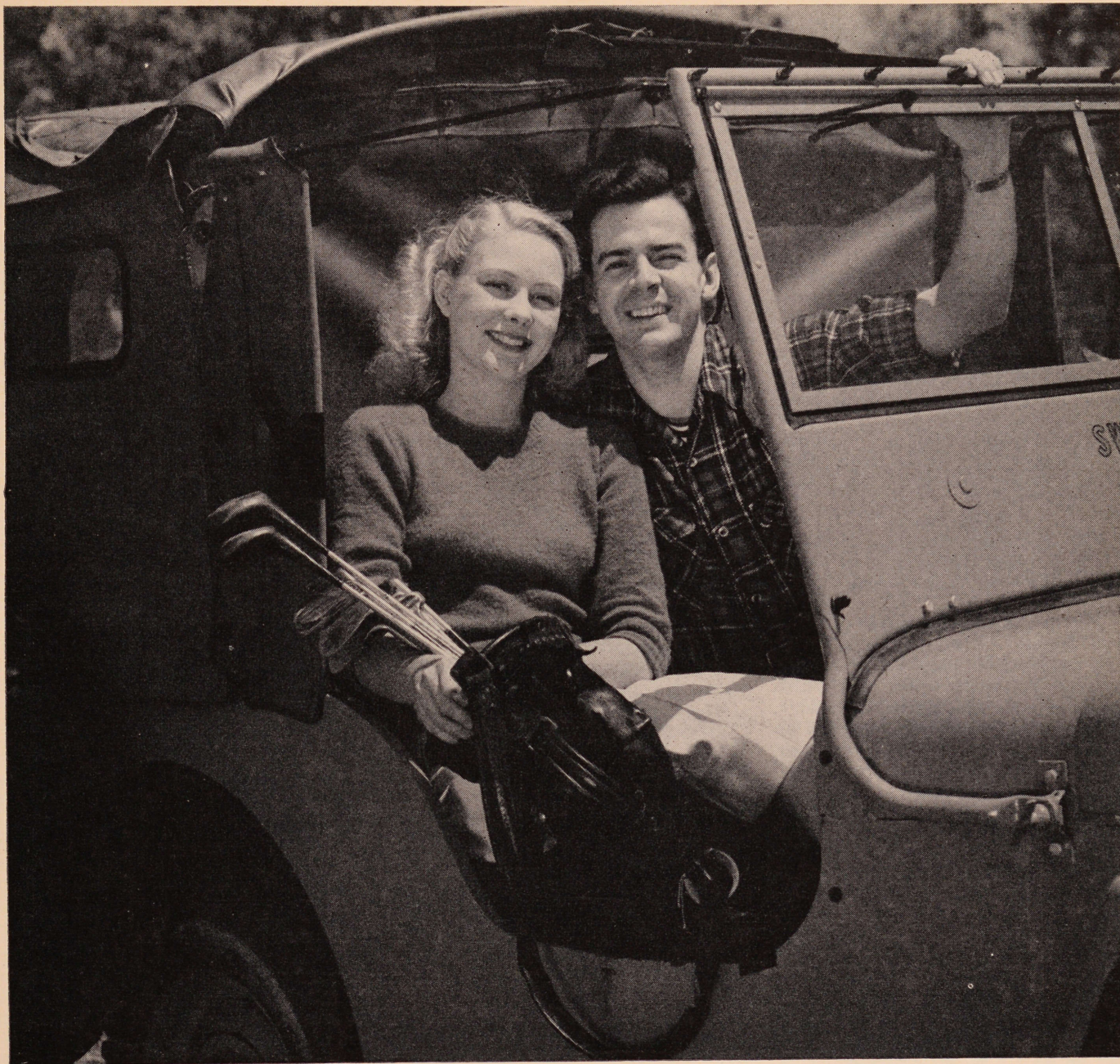
We also make 16mm Sound Cameras and Recorders, Blimps and Synchronous Motor-drives for the Cine-Kodak Special, and the Automatic Parallax View-range Finder.

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Good idea for a movie!

HERE'S a suggestion for getting better, more lifelike outdoor movies.

Pictures that tell your audience: "Here's a person who really knows how to handle a motion picture camera."

See how much brighter, more natural, your pictures are when you take them on Ansco Hypan Film.

There are reasons why they should be.

Hypan has a bright-contrast emulsion that just naturally puts glorious, sparkling brilliance in your pictures.

Furthermore, Hypan has fine grain—to give you clearer, sharper screen images. And Hypan's panchromatic sensitivity brings you richer tone values.

Anytime—all the time—for finer projection quality, load your camera with

Ansco Hypan Film. 8 or 16mm. **Ansco,**
Binghamton, New York.

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Ansco

8 and 16 mm

HYPAN FILM

Current Assignments of A. S. C. Members

As this issue of *AMERICAN CINEMATOGRAPHER* goes to press, members of the A. S. C. were engaged as Directors of Photography in the Hollywood studios as follows:

Columbia

Charles Lawton, Jr., "The Lady From Shanghai," with Rita Hayworth, Orson Welles, Glenn Anders.

Edward Cronjager, "Three Were Thoroughbreds," (Technicolor) with Robert Young, Willard Parker, Marguerite Chapman, Akim Tamiroff.

Burnett Guffey, "Assigned to Treasury," with Dick Powell, Signe Hasso, Maylia, Ludwig Donath, Vladimir Sokoloff.

Henry Freulich, "Major Denning's Trust Estate," with Gloria Henry, Paul Campbell, Harry Davenport, Mark Den-
nis.

Eagle-Lion

L. W. O'Connell, "Repeat Performance," with Louis Hayward, Joan Leslie, Richard Basehart, Tom Conway, Benay Venuta.

Metro-Goldwyn-Mayer

Hal Rosson, "The Hucksters," with Clark Gable, Deborah Kerr, Sydney Greenstreet, Keenan Wynn, Ava Gardner, Adolphe Menjou, Edward Arnold.

Charles Rosher, "Song of the Thin Man" with William Powell, Myrna Loy, Keenan Wynn, Jayne Meadows, Leon Ames, Patricia Morison.

Monogram

Paul Ivano, "The Gangster," (King Bros.-Allied Artists), with Barry Sullivan, Belita, Joan Lorring, Akim Tamiroff, Henry Morgan, Fifi Dorsay.

Paramount

Leo Tover, "I Walk Alone," (Hal Wallis Prod.) with Elizabeth Scott, Burt Lancaster, Kirk Douglas, Wendell Corey, Kristine Miller, George Rigaud.

Ernest Laszlo, "The Road to Rio," with Bing Crosby, Bob Hope, Dorothy Lamour, Gale Songergaard, Frank Faylen, Joseph Vitale.

Fred Jackman, Jr., "Albuquerque," (Clarion Prod.-Pine Thomas) (Cinecolor) with Randolph Scott, Barbara Britton, George (Gabby) Hayes, Russell Hayden, Lon Chaney.

PRC

Jackson Rose, "Stepchild," with Brenda Joyce, Donald Woods, Terry Austin, Gregory Marshall.

Jack Greenhalgh, "Too Many Winners," with Hugh Beaumont, Trudy Marshall.

Republic

John Alton, "The Trespasser," with Dale Evans, Janet Martin, Warren Douglas, Adele Mara, Douglas Fowley, Grant Withers.

RKO

Frank Redman, "If You Knew Susie," with Eddie Cantor, Joan Davis, Allyn Joslyn, Sheldon Leonard, Douglas Fowley, Sig Ruman.

Robert de Grasse, "Indian Summer," with Alexander Knox, Ann Sothern, George Tobias, Myrna Dell, Florence Bates, Sharyn Moffett.

Harry Wild and W. Howard Greene, "Tycoon," (Technicolor) with John Wayne, Laraine Day, Sir Cedric Hardwicke, Anthony Quinn.

Gregg Toland, "The Bishop's Wife," (Samuel Goldwyn Prod.) with Cary Grant, Loretta Young, David Niven, Monty Woolley, Marsha Anne Northrop.

Selznick

Lee Garmes, "The Paradine Case," with Gregory Peck, Ann Todd, Charles Laughton, Charles Coburn, Ethel Barrymore, Louis Jourdan, Joan Tetzl, Leo G. Carroll, Colin Hunter, Valli, Lester Matthews.

Twentieth Century-Fox

Leon Shamroy, "Forever Amber," (Technicolor) with Linda Darnell, Cornell Wilde, Richard Greene, Glenn Langan, George Sanders, Leo G. Carroll, Margot Grahame.

Charles Clarke, "Miracle on 34th Street," with John Payne, Maureen O'Hara, Porter Hall, Philip Tonge, James Seay, Edmund Gwenn, Gene Lockhart, William Frawley.

Joseph LaSelle and Arthur Arling, "Captain from Castile," (Technicolor) with Tyrone Power, Jean Peters, Cesar Romero, Lee J. Cobb, John Sutton, Antonio Moreno, Thomas Gomez, Alan Mowbray.

Charles Lang, "The Ghost and Mrs. Muir," with Gene Tierney, Rex Harrison, Edna Best, Robert Coote, Natalie Wood, Isobel Elsom, Victoria Horne.

United Artists

Karl Struss, "Heaven Only Knows," (Nero Films) with Robert Cummings, Brian Donlevy, Jorja Curtright, Marjorie Reynolds, Bill Goodwin, John Litel, Stuart Erwin.

Franz Planer, "Vendetta," (California Pictures) with Domergue, George Dolenz, Hillary Brooke, Nigel Bruce.

James Wong Howe, "Body and Soul," (Enterprise) with John Garfield, Lilli Palmer, Hazel Brooks, Ann Revere, William Conrad.

Universal-International

Stanley Cortez, "Secret Beyond the Door," (Diana Prod.) with Joan Bennett, Michael Redgrave, Natalie Schafer, Rosa Rey.

William Daniels, "Brute Force," (Mark Hellinger Prod.) with Burt Lancaster, Hume Cronyn, Charles Bickford, Sam Levene, Jeff Corey, Ann Blyth, Ella Raines, Yvonne De Carlo.

Warners

Ernest Haller, "The Unfaithful," with Ann Sheridan, Zachary Scott, Lew Ayres, Steven Geray, Eve Arden, Peggy Knudsen, John Hoyt.

Woody Bredell, "The Unsuspected," (Michael Curtiz Prod.) with Joan Caulfield, Claude Rains, Audrey Totter, Constance Bennett, Michael North, Hurd Hatfield.

Karl Freund, "Wallflower," with Joyce Reynolds, Robert Hutton, Janis Paige, Edward Arnold, Barbara Brown, Don McGuire.

Lenten Films Available Through United World

United World Films, which recently acquired the Bell & Howell Filmosound library for distribution of 8 and 16 mm. films, reminds that a number of special Lenten subjects are available for bookings through its offices.

List includes: "Journey Into Faith," "First Easter," "Crown of Thorns," "Jesus of Nazareth," "Passion Play"; and the "I Am the Way" series of 13 silent subjects edited from "The King of Kings."

New! TELEFILM'S "Lok-On" Flange



Used by Leading Hollywood 16mm Editors and Producers for Editing and Re-winding

It's Telefilm's latest 16mm. time saver! Sides are of heavy gauge clear plastic. Engraved footage scale on inside surface shows amount of film on spool. One side removable—so you save time by slipping on film without winding. Nothing ever like it for winding short lengths of film into coils quickly, without endangering emulsion surfaces. Outer side has specially-made locking device, allowing removal of film by means of a simple lock. Core takes standard lab pack spools, fits a standard 16 or 35 mm. rewind.

TRY IT 10 DAYS — MONEY BACK!

May be purchased complete, 8 inch size \$17.50 or 9½ inch size \$18.50, or the face side with spool may be purchased separately at half above prices. Immediate delivery. Use it 10 days then money back if not delighted.

TELEFILM INC.

HOLLYWOOD 16mm HEADQUARTERS
6039 Hollywood Blvd., Hollywood 28, Calif.

The Zoomer Lens

(Continued from Page 87)

which later could be matched to the sound track without the need of special editing. The Zoomar lens has proved extremely useful in other fields also.

It is easy to imagine the difficulties of a cameraman covering a session of the United Nations Assembly, or any other formal meeting, from the press and film gallery. Very often, long sequences of one speaker are required and with only one camera available, the exchange of lenses on a turret-camera head is not rapid enough to assure an uninterrupted flow of pictures of the speaker.

A variable focus lens fitted to the camera will guarantee an absolutely continuous picture flow and achieve the vividness and variety of closer and wider shots which up to now were only a cameraman's dream. The same goes for the filming of any official functions, such as the inauguration of a president, the celebrating of High Mass in a cathedral, or of any scene where the solemnity of the occasion makes it impossible for the cameraman to weave around for closer or wider shots. In such situations, one cameraman has the possibility of filming from one fixed position, both the main celebrities of the event and the public as the use of the Zoomar lens makes it unnecessary for him to change the position of his camera.

While filming great sports events the newsreel cameraman may find himself in a similar situation. The exchange of lenses or the turning of the turret head of the camera often requires refocusing or resetting of the stop, which means considerable loss of time. A football or a fast tennis game can be filmed in a more vivid, more interesting, and more satisfactory way if the Zoomar lens is used. Thus one focusing gives a sharp definition of the picture for any position of the focal lever and no changing of the stop is necessary because the relative aperture remains unchanged throughout the zoom.

In spite of its versatility the Zoomar lens was by no means designed to replace the other camera lenses now in use. Its main purpose is to serve in situations where other lenses or other technical means would fail; or where their performance would be inferior to that of a varifocal lens. A cameraman specializing in the travelogue field will encounter many such situations. Filming historical buildings he will want to show architectural details such as the interestingly sculptured capitals of columns, antique clocks, weather vanes on interestingly sculptured columns of capitals, antique clocks, weather vanes on church steeples, or gargoyles, etc., but for obvious reasons it would be impossible to make such close-ups. Abrupt

transition from an ordinary overall view to a telephoto shot would make the whole thing confusing as these details are generally too small to be detected on overall shots. The gradual transition by a zoom shot not only guides the attention of the spectator to that particular detail, but it also shows him where this detail is located. A 36 times enlargement of a detail will generally be sufficient even if the building to be filmed is across a river, or situated upon an inaccessible hill top.

The same problem arises in educational pictures of all kinds. It is a standard practice to draw attention to important details by close-ups. But such a close-up tells only half the story if it does not show how this detail fits into the whole.

In industrial pictures another factor has to be considered. The customer who commissions these pictures usually does not wish to incur the additional expense of stopping the work in his factory and having the workers pose for the cameraman. The latter, therefore, usually has to work while work at the plant is in full swing and is thereby greatly handicapped in his movements. It is certainly a boon if he can zoom from long shots to close-ups of machinery and processes without getting too close to the workers, endangering himself, or obstructing the flow of work.

In the production of geological and other nature films, situations may occur in which it would be desirable to show the inside of a crater, the bottom of the Grand Canyon or similar inaccessible spots. The Zoomar lens, with its telescopic extension, makes it possible to render in large size any desired close-up of a geological formation.

The spectator of such scenes will permanently keep in mind the exact location of such a detail and will be conscious of its proportions, its correct size and its relationship to the whole phenomenon.

The Zoomar offers nearly unlimited possibilities in the field of trick-shots and special effects. A rapid zoom taken from a high roof top with a camera tilted downward gives the impression as if the cameraman were falling from great heights, an effect which can hardly be achieved otherwise. On one occasion the script required a pilot's view of a dive bomber going into a dive. The shot was first taken from an actual aircraft, the cameraman sitting beside the pilot. These pictures proved to be a complete flop because during all the tries the cameraman either "blacked out" completely or got so excited that he forgot to operate his camera properly and at the right time. Finally, the shot was taken from the top of a high stationary structure and the dive simulated by co-ordinated tilting of the camera and operating of the zoom lever;

the result could not be distinguished from the real thing.

The foregoing example shows a deviation from one of the basic rules of orthodox camera technique, namely, that every camera movement has to be slow and steady; this rule was broken to simulate the impression of falling, diving and so on. But the unorthodox, rapid, even hasty zoom itself is a powerful tool to express dynamic definite emotions like fear, terror, anxiety, etc., especially in the field of the modern artistic films. These films try not so much to give a photographically faithful record of actual happenings but to convey the mood and impressions of the protagonists.

In animation and cartoon work the Zoomar lens will be greatly appreciated for the many shortcuts which it offers.

The same problems which confront the motion picture cameraman are also encountered in another field which is still in its infancy; television. Here, the situation is aggravated by the fact that the video equipment is much clumsier than the motion picture camera and cannot be as easily moved around. Everything previously said about motion picture work, especially newsreel and documentary reporting applies to an even greater extent to telecasting. A varifocal lens similar to the motion picture Zoomar but adapted to the special needs and conditions of television work is now in preparation.

Thus, when video takes its rightful place beside stage, screen, and radio it will have the necessary tools not only electronically but also optically to live up to any situation which may arise.



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AC-3

"13 Rue Madeline"

(Continued from Page 89)

of No. 1 photofloods rigged off a battery were set up inside the car to boost interior illumination. During the scene, the car actually went rolling down the street with the cameraman grinding away at the scene. The result was perfect, and there was not an actual process shot in the whole picture.

Night scenes were filmed mostly in the day time, being heavily filtered and later printed down in the lab. The climatic chase sequence, however, was actually filmed at night, contrast being achieved through the use of small are lighting units.

Throughout most of the picture, Plus X negative film stock was used. In sequences where not enough light was available, however, Super XX was substituted. 20th-Fox's New York lab, which developed all of the negative, effectively balanced these two emulsions so that they could be freely intercut without any fluctuation in quality.

The success of the three *news dramas* which have thus far applied the documentary style to feature films has inspired Twentieth Century-Fox to use the technique on strictly fictional themes as well. There are several such stories on the current schedule, notably the novel, "Spoonhandle" which will be shot in New England locations this spring.

From this start, and through the continued efforts of producers like Louis de Rochemont, we may hope to see a new forceful realism added to the glossy technique of the American photoplay.

35 mm. Film Found

Three cans of 35 mm. film, consisting of a 2,000 foot can of negative, and two 1,000 foot cans of positive—all claimed to have been found in a lot—are in possession of the Camera Mart, 70 West 45th Street, New York 19, N. Y. The positive comprises scenes of American Indian country in Arizona or Montana, in addition to shots of a rodeo. Possible owners of the film should contact Camera Mart, properly identifying ownership of reels in hand.

Newsreel Cameraman

(Continued from Page 90)

places we were passing over; his voice recorded exceptionally well, considering the drone from the motors. We were later complimented on the quality of the negative and sound, and were informed that these were the best night shots made over New York up to that time.

Our first jungle assignment was in Hyderabad, where our camera was placed on a platform built in a tree at a 15-ft. elevation. The microphone was set where we hoped a tiger would make an appearance to kill a water buffalo or cow. This continued for nearly three months with only partial success—the tiger refused to co-operate.

We then moved to the native state, Cooch Behar, north of Calcutta. The Mahareni of Cooch Behar was very co-operative and we made several tiger hunts from elephants. In all we had 32 elephants. We were more successful on this enterprise. On our first trip into the jungles the two elephants mentioned before had quite a battle over a maiden elephant, and that nearly ended our hunt before we even got to our jungle location, but the mahouts appeased the elephants.

About 20 elephants would form a large circle and drive in any tigers or other animals that were encircled in the ring toward the fire line where we, the Mahareni, and her guests were set up. Our first drive netted a huge black bear with two cubs clinging tightly to their mother's back. The huge bear came out of the jungle so close to my camera elephant that he became startled and reared back on his hind legs, and in turn gave me quite a scare not knowing whether he would crash back on me and the equipment. The elephant finally settled down and surprisingly enough we had some very good pictures with sound of the elephants trumpeting wildly and loudly. The Mahareni's guests made no attempt to shoot the bear because it is not considered sportsmanlike to shoot a mother bear with cubs.

In our next beat-in, we rounded up a leopard, and the following day we rounded up a large tiger weighing nearly 400 lbs. This is really a sport of kings as one has to be an invited guest to take part in a hunt of this nature.

In April, 1930, we returned to Calcutta. The city was in an uproar. The Ghandi riots had started so instead of returning to New York we shot a lot of material in Calcutta, and then proceeded to Bombay where the fighting was more intense. We made thousands of feet of riot pictures.

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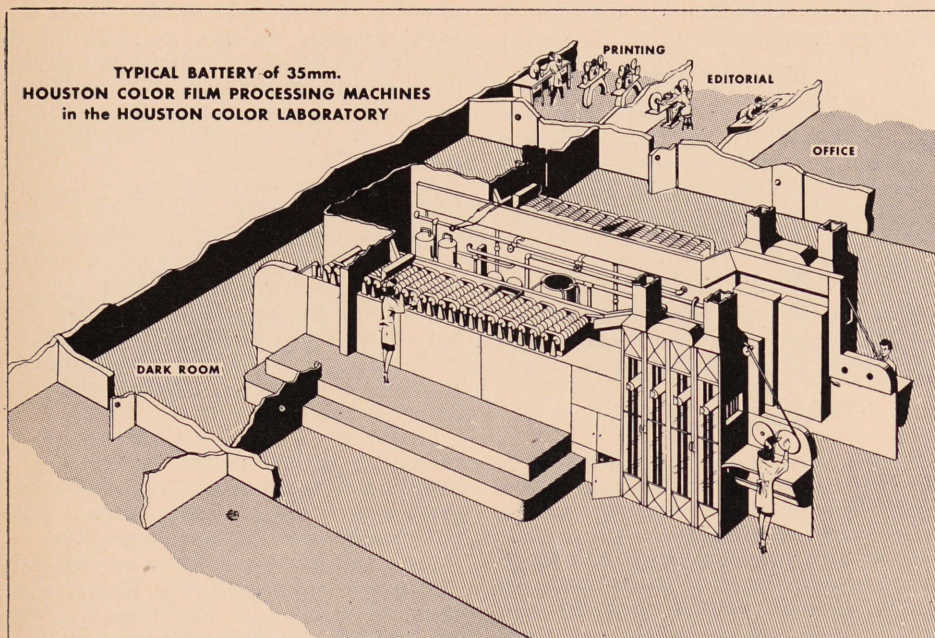
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New Houston Laboratory for Ansco Color Processing



The pent-up demand by the public for more major film productions in full color is now closer to realization with the announcement that Houston Color Laboratories are now equipped to render complete Ansco Color Film processing, printing, editorial, and duplicating services at the Houston Color Laboratories in Hollywood. Houston is the first and only laboratory to qualify to do the complete service job for the motion picture industry on Ansco Color Film. Judged in terms of new volume of full color release prints available for national and world-wide markets, this announcement is of major significance to the film world.

Arrangements have been made through Ansco for a large quantity of raw film to be available to Houston for high quality production of release prints for motion picture producers. H. W. Houston, president of The Houston Corporation, has announced that the new laboratory facilities include a complete service of printing and processing to be made available to professional, amateur, industrial and educational film users.

Firms which may wish to place large orders for duplication of slides, advertising films and advertising projection strips, are assured rapid duplication in any quantity desired. In an interview at the color laboratory, executives outlined this complete service now available to the motion picture industry. Camera material can be processed rapidly and prints made therefrom. Intermediate editorial special effects such as lap-dissolves, wipes, fades, and blow-ups are among the services to be rendered by Houston. Development of a special printing machine makes it possible for Houston to deliver high quality color release

prints complete with sound. The service will be augmented by blow-ups to 35mm. from 16mm. original color film which can be made and duplicated in quantity for general release.

The color processing service on Ansco 35mm. for amateurs will be continued

at Houston Color Laboratories, together with mountings of all finished transparencies in the popular plastic slide holder developed and manufactured by Houston. Reproduction of slide films is available in either 35mm. single or double frame size. This duplication of 35mm. mounted transparencies is being done relatively inexpensively as compared with previous methods because of the refinements in processing and printing equipment, and therefore becomes an important factor to both professional and amateur color film users.

Houston has invested over 2½ years in experimentation and refinements in color printing and processing in close collaboration with Ansco Color technicians. Much credit is given by the industry to the high quality Ansco Color processing technique developed at Houston, and much is anticipated as a result of this new facility for the motion picture industry. A broad section of the film industry is expected to take advantage of this new source of color reproduction. This marks the beginning of a new era for both professional and amateur fields.

The accompanying illustration shows a typical battery of 35mm. color processing machines in the Houston Color Laboratories.

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Composition

(Continued from Page 86)

the line of a woman's back: "A curve in which the most perfect beauty resides is one midway between the swelling curves which are pompous and extravagant, the flatter ones which produce an effect of stiffness." This ideal curve is also termed the "Calypgian Line."

True beauty in composition does not lie in the practice of extremes. We should be warned against swinging into an easy curvilinear composition. The basis of the scene should lie in the straight lines which a succession of interrelated spots can suggest. Gentle curves, not violent ones, may then be inserted to temper harshness.

Direction of Line in the Frame

A line in motion pictures may traverse the screen *vertically*, *diagonally* and *horizontally*. Direction in most composition is not achieved from a single line, but rather from the *average direction* of a group of lines.

Vertical Line

Vertical line can stand alone in composition. It requires no support to maintain balance. It embraces those qualities upon which we treated in our discussion of the sides of the frame. We do not believe that this beautiful and architecturally solid line is used in modeling

as much as it might be. The straight shadow of almost every wall and door in most picture productions is angled with a chopper, meat axe or gobo.

Diagonal Line

This line is essentially one which conveys movement. If we treat this line statically and without support it challenges our sense of gravity and leaves one with a feeling of falling and unbalance.

Horizontal Line

This line we associate with reclining and restfulness. Connected usually with the bottom of our frame it is basic, stable.

Tricks with Line

We may give almost any direction to our composition by varying the camera angle. Shooting from overhead, tilting to one side, shooting from a very low position, all manipulate line in our frame in any manner we may desire. *Why* we assume these angles and the motivation for this manipulation is discussed in a later section dealing with dynamic composition. At present we are concerned only with the pictorial design of the single static shot.

Composition in General

Balance in motion pictures is a bit more complex than balance in still photography. In pictures involving move-

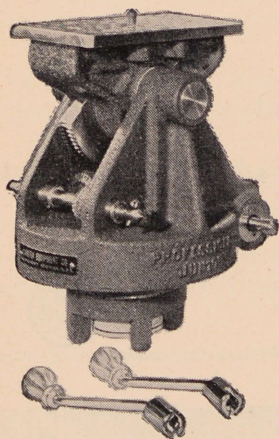
ment we may have static unbalance, but because of the action in the scene and the direction it may take in the frame we have dynamic balance to offset this seeming discrepancy. Balance is derived from correct distribution of tone areas, or quality elements, from line and direction of line, and from placing and spacing in the frame.

Variety may be termed the "spice of life" in the world of reality. It is also the spice of the picture in the cinematic illusion. It is the little detail in the shot which has been given a modicum of attention. It is the piquant lighting of some doorway, or arch. It is the halation of a glass or a pool of water. These seemingly insignificant things add pleasurable interest.

Conversely, we must not have too much variety or divertimento. We must adhere to a certain sense of order, rhythm and symmetry. We must project a certain continuity of line and accents.

Last but not least, we must restrict ourselves to principality of theme. The artist Reynolds, in his discourse, on painting, propounded: "Every man that can paint at all can execute individual parts; but to keep these parts in due subordination as relative to the whole, requires a comprehensive view of art that more strongly implies genius than any quality whatever." There must be no doubt as to the principal unit of the picture. Give the audience no competition for its attention.

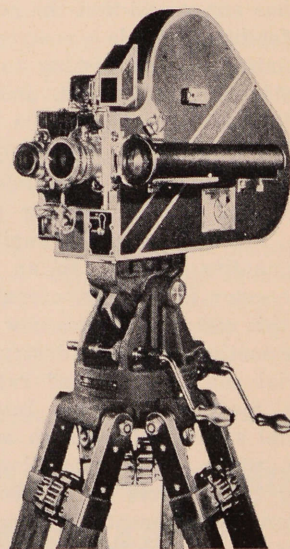
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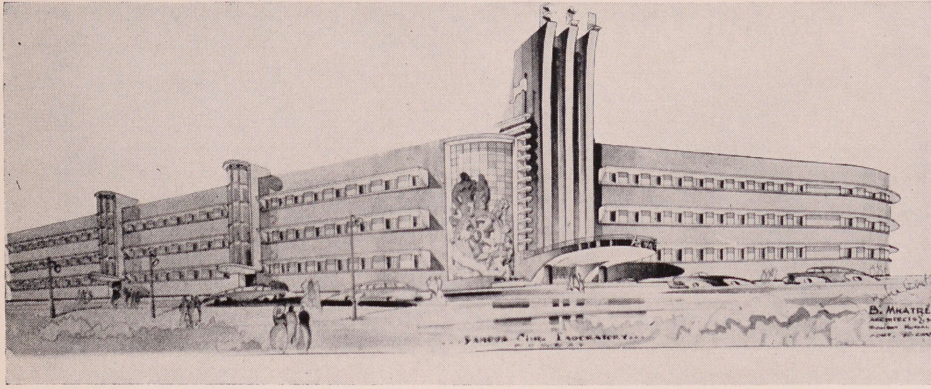
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Modern Laboratory and Studio at Bombay



Indication of the progress of the film industry in India, and the large amount of American film processing and production equipment used, is contained in description of the Famous Cine Laboratory and Studios of Bombay. Technical advisor D. R. Billimoria of Famous Cine, who has been in the United States for some time studying latest production methods and purchasing modern equipment, supplies the information on the Bombay plant.

Fireproof building, three stories in height, covers an area of 1,005,000 square feet. It contains stages, 200 rooms, six projection rooms, 36 film editing rooms, and complete roster of general production departments. Building is completely air-conditioned by Westinghouse.

Printing room contains six Bell & Howell printers, two DePue sound reduction printers, two DePue picture reduction printers, 12 DeBrie French-manufactured super matipo 35 mm. printing machines. RCA sound recording equipment is used throughout.

Camera equipment includes three Mitchell BNC and two NB Mitchells, five Bell & Howells, two Super-Parvos (French), and background projectors made by Mitchell Camera Co. All lights, wire junction boxes and high-intensity arcs were supplied by Mole-Richardson Corp.

There are four 35 mm. equipped projection rooms, all equipped with RCA projectors; and two 16 mm. projection

rooms having Bell & Howell high-intensity arc lamp equipment.

Laboratory, with processing capacity of 3,000,000 feet weekly, contains eight 35 mm. positive developing machines, four 35 mm. negative developing machines, four sound developing machines, two 16 mm. developing units—all of which are of American manufacture. In addition to processing film for 42 Indian producers, Famous Cine handles dupes and prints for several major American distributors to cover the Indian print requirements.

New RCA Recording Studios Opened in New York

RCA Film Recording Department has opened enlarged and renovated scoring and recording studios at 411 Fifth Avenue, New York City. Added studio space will allow for dubbing of foreign language versions of American productions; in addition to narrative, sound effects and music scoring of both 35mm. and 16mm. films.

Long Service for Victors

During the past two years, two Victor Animatophone projectors have run a total of 6020 hours for showings of entertainment films to British troops in India. This information is provided by Sergeant C. Edwards, serving with British forces in Panagar, Bengal, as a motion picture operator.

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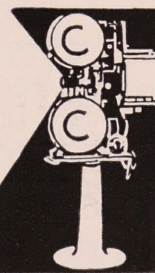
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New Officers Elected By Victor Animatograph

Samuel G. Rose, associated with Victor Animatograph Corporation since latter's formation in 1910, has been promoted from executive vice president to president of the company. He succeeds Alexander F. Victor, who resigned the presidency and its attendant executive and administrative responsibilities to devote his full time to supervising and directing the development of new products included in the company's recently-adopted expansion program.

Victor Animatograph, purchased last year by Curtiss-Wright Corporation, has long range plans for the design and manufacture of new and improved models of 16 mm. projectors and cameras to meet increased demands for such equipment. Horace O. Jones, with the organization since 1932, has been promoted to vice president.

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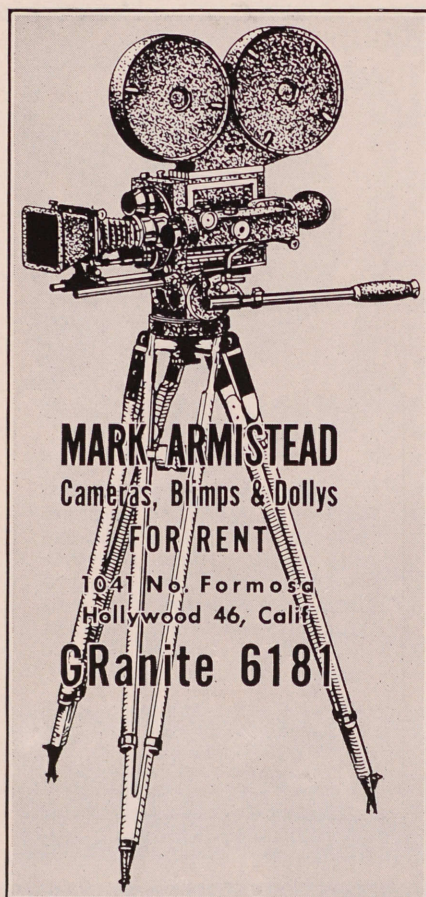
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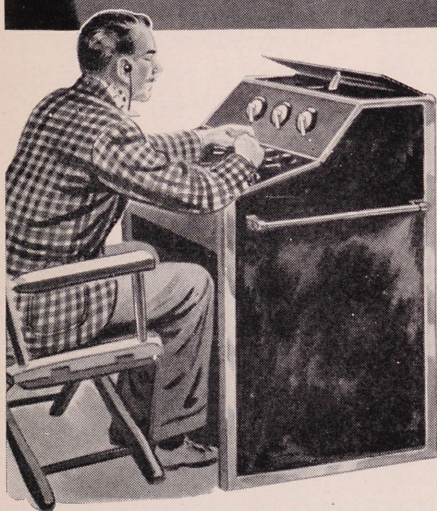
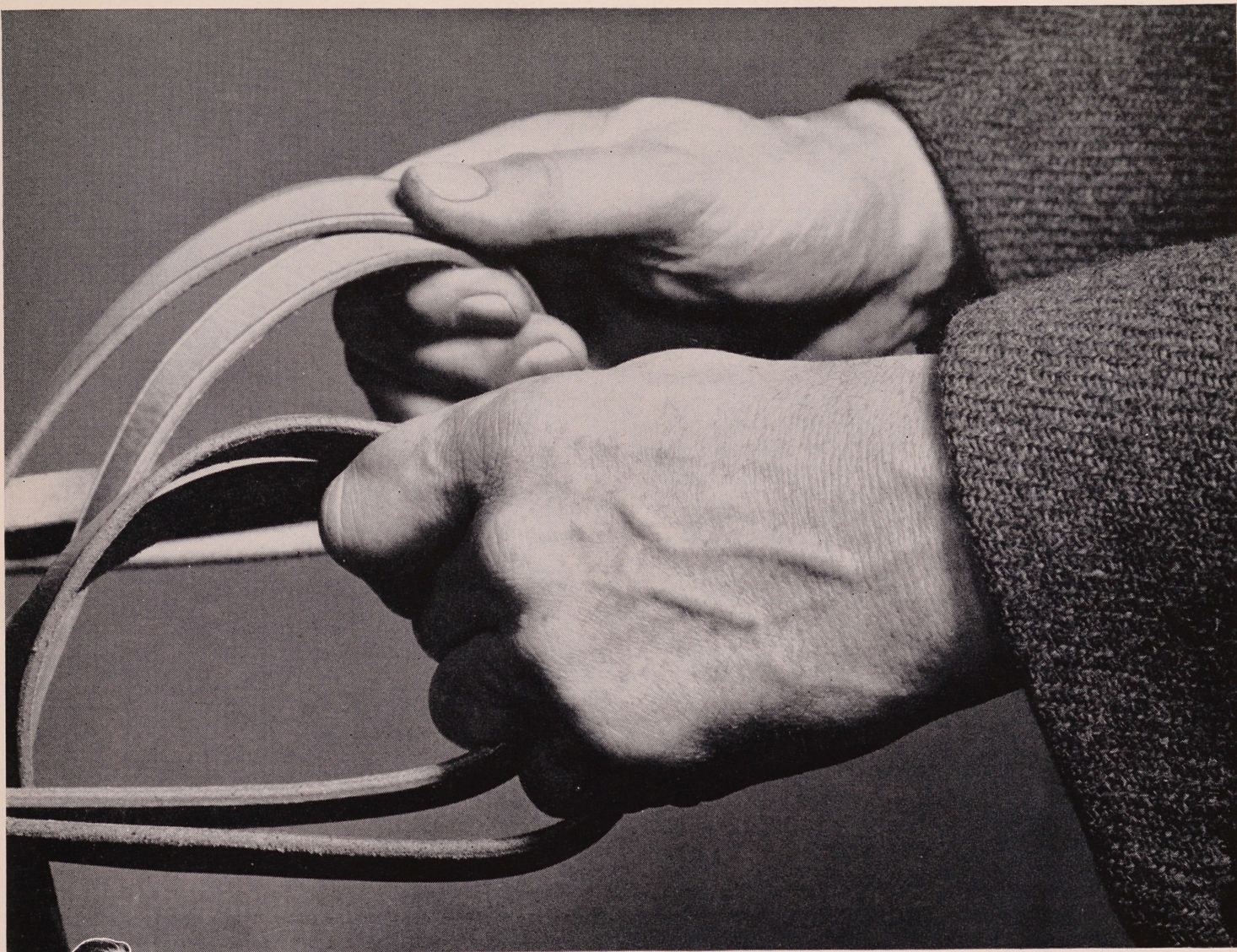
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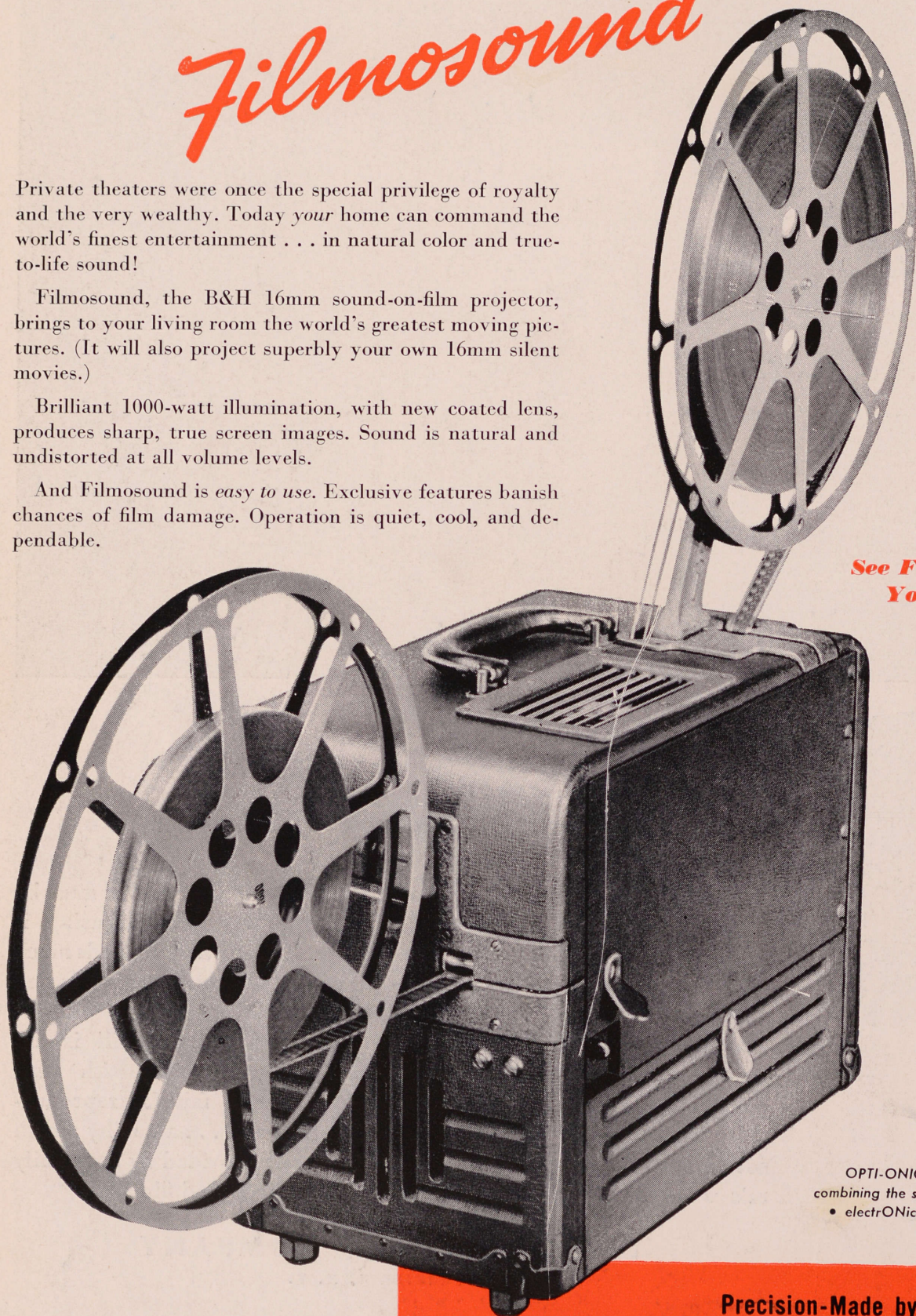
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